

Findings and Recommendations



Teacher Certification Program Implementation

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Legislative Program Review
& Investigations Committee

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Teacher Certification Program Implementation (Phase II)

Public school teachers in Connecticut must hold a valid certificate issued by the State Department of Education (SDE) in order to teach. Roughly 43,000 full-time equivalent teachers are certified and teaching in the state. The education department has a process in place to review and act on the thousands of applications it receives annually for certification.

Over the years, Connecticut has modified its teacher certification requirements with the intent of increasing the overall quality of teachers in the state. The state's Education Enhancement Act in 1986 replaced the previous two-tiered teacher certification system with a three-tiered structure, instituted a professional development requirement, and mandated beginning teachers complete an assessment program in order to maintain state certification. These teacher certification requirements have been in place for over 20 years. The certification requirements and potential changes to them may impact not only teacher quality but also the state's ability to attract and retain teachers.

Study Focus

The program review committee's study of the implementation of teacher certification in Connecticut focused on the operations within SDE's certification unit, assessing whether the department's administration of the certification system is efficient and responsive to teachers and other customers served. The study is the last phase of a two-phase study of teacher certification in Connecticut. The committee completed its first phase – a review of the Beginning Educator Support and Training program – last year.

The scope of study, approved by the committee in April 2008, outlined several specific areas to analyze. Principally, the committee was interested in: 1) the current certification requirements for experienced teachers and how the requirements have changed over time, including SDE's present effort to revise the requirements; 2) the organization and resources within the department to fulfill its role in the teacher certification process; 3) SDE's efforts to implement and consistently apply teacher certification requirements; 4) reciprocity with other states for certification purposes; 5) the continuing education requirements for teachers and SDE's current effort to modify the requirements; and 6) the process used to ensure school districts comply with the state's certification requirements for educators.

The State Department of Education made a major attempt to revamp its certification requirements for teachers in the late 1990s. The effort changed certification requirements as a way to ensure classroom teachers were qualified to meet the learning needs of an increasingly diverse student population. In 2003, however, the legislature – acting on the State Board of Education's request – repealed the regulations prior to the implementation date. A second attempt to overhaul the certification regulations is currently underway. The department again is trying to implement certification requirements it believes will ensure teachers are prepared to teach the wide range of student learners in schools across the state. Chief among those changes is the process SDE has used to develop the proposed changes, circulate information of the

changes among stakeholders, and garner support of the changes in an effort to avoid a result similar to when the last major attempt to change teacher certification regulations occurred.

During the course of this study, feedback was received from a variety of constituencies, including from the committee's public hearing on this topic. Careful consideration was given to the comments, concerns, and ideas expressed through interviews, surveys, and testimony received as this set of findings and recommendations was developed.

The report finds the operations within the certification unit to process and review certification applications mostly effective and efficient. Analysis of certification processing was limited to a degree because many of the current processing procedures will change or become obsolete when the department implements its new automated, web-based certification system anticipated in early 2009. The new system is designed to improve the certification process for educators and enhance the performance of the certification unit. However, increased checks on whether applications are properly evaluated are needed. The committee also makes findings and recommendations to increase the level of management oversight of the unit, track the quality and quantity of teachers' professional development activities, and provide oversight of the continuing education audit process.

The certification unit received high marks from educators and school districts for the unit's services and information provided to customers, as determined by two surveys conducted by committee staff. Districts tended to give more favorable ratings than educators across four key customer service components. Roughly 90 percent of districts and 80 percent of educators were satisfied with the unit's overall services. The committee believes the unit should strive further to ensure its customers continue to receive prompt, thorough, and complete service and information.

The total number of employed educators found lacking proper certification at the end of the last three school years is minimal in relation to the total number of educators certified in the state during those years. However, the potential number of students taught daily by teachers who are not appropriately certified in Connecticut could number several thousand. Formal communication from the commissioner to school districts regarding certification compliance issues does not occur until near the end of the school year, meaning districts technically have a full school year to submit their required compliance information to SDE. Therefore, teachers not appropriately certified may remain teaching for many months during a school year, if not for an entire school year. The State Board of Education has not addressed the issue of compliance and does not use its statutory authority to require school districts comply with state educator certification requirements.

The committee also finds the State Department of Education has been shaping and attempting to build support for major changes to the certification structure and endorsement requirements over the past four years. Some changes are based, in part, on federal requirements and the needs of Connecticut's students and teachers. The department appears to have made a more proactive effort to receive input from education constituencies, compared to the last time certification revisions were considered.

The report examines the state's current teacher certification requirements as well as the potential changes, and focuses on whether those requirements have been associated by education researchers with higher student achievement. Researchers agree that a few key aspects of teacher preparation required or being considered by Connecticut generally do not positively impact student learning. In those cases, the committee recommends the education department re-examine the requirements or proposals, in light of the research and teacher shortages. One key area of the current requirements where there seems to be wide consensus among education constituencies in Connecticut – including many within SDE – is that continuing education for teachers is not effective in some districts. The committee makes a series of recommendations that aim to shift Connecticut's education community from a continuing education coursework model to more meaningful professional development with the clear, overarching goal of improving teacher quality and student achievement.

Methodology

A variety of information sources was used for this report. Extensive interviews were conducted of the various constituencies associated with teacher certification, including the State Department of Education, the state's two teachers' unions, teacher preparation programs, and several private organizations in Connecticut focused on studying education issues. Sessions held by SDE with stakeholders as part of a broader effort to involve stakeholders in the process for revising certification regulations were observed. An extensive literature search was conducted, SDE certification program information and data were reviewed, and information about certification in other states was collected.

As noted, key sources of information for this report included the results of two surveys. The surveys served as an important method for receiving feedback from educators and school districts regarding the state's process for certifying educators. A sample of educators who received their certification during the month of July 2008 was surveyed and another survey was conducted of human resources directors at each public school district in the state. A full description of the survey methodologies and copies of the survey materials sent to educators and districts are included in Appendix A.

Report Organization

This report is organized into four sections, each containing analysis, findings, and recommendations. Section I examines operations within the department of education's certification unit. Section II summarizes the results of the two surveys used to gauge the satisfaction levels of educators and school districts with the certification unit's customer service. Section III details the unit's efforts to ensure school districts are complying with the state's certification requirements for educators and assigning staff only to positions for which they are appropriately certified. Section IV provides an overview of the state's certification requirements for educators, including past changes to the requirements and the current set of proposals to modify the requirements.

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Section I: Certification Unit Operations

A key component of this study was to examine the operations within the State Department of Education to implement Connecticut's certification requirements for teachers. Although operations are principally reviewed in this section, other sections in this report also contain information on certification operations. The department's educator certification unit is charged with reviewing certification applications and issuing educator certificates, overseeing continuing education that is required for highest-level certification, and informing educators and their employers of certification requirements. This section assesses the unit's performance in these areas and issues recommendations on how operations could be improved.

Processing Applications

When an educator applies for certification, the certification unit: 1) reviews the application form and accompanying materials; 2) ensures the criminal background check, assessment, and educational requirements have been met; and 3) issues certification commensurate with preparation and relevant experience. The department's standard to complete the process is between four and six weeks when the submitted application is complete, as noted in this study's June briefing report.

The process used to evaluate applications and issue certification appears reasonable, with some modifications and additional oversight as discussed later in this section. The unit's computerized system has built-in mechanisms that ensure only educators who have met the assessment and background check requirements are issued certification.

The time it takes the unit to process applications also seems reasonable. In discussions held for this study, education stakeholder groups agreed that while a faster process is always desired, the current processing time is sufficient. Educators who were surveyed for this study also concur: less than eight percent indicated their application had not been processed in a timely manner. (See Section II for a description of the survey.) The results of a file review of certification applications conducted for this study provide further evidence of processing timeliness. One hundred randomly selected applications from educators who were issued certification in early and mid-August 2008 indicate the median time from the unit receiving all necessary materials to granting certification was 12 days, well within the unit's stated standard.¹ Finally, that standard is higher (i.e., the review process is to take less time) than that of other populous Northeastern states.²

¹ The time from the unit receiving all necessary materials to granting certification is used because the unit can only fully process applications that are complete. Applications may arrive at the unit incomplete, lacking payment, transcripts, or supplementary application forms (e.g., recommendation from school district or teacher preparation program). In these cases, the unit contacts applicants, a median of six days after receiving the application form according to the file review. The minimum and maximum processing times for complete applications were four and 50 days, respectively.

² The processing times of some other Northeastern states are six to eight weeks in Massachusetts and Vermont, and three months in New Jersey and New York. Maine and New Hampshire's processing times are between one and

New certification system. SDE for several years has been in the process of developing a new, web-based certification system to replace its decades-old system. The new system expands on the current system's functions and will be accessible via the Internet, which will allow educators the option of applying for certification online. The certification unit is to begin use the system internally in December 2008, and, if adequate funding for system maintenance is obtained, the system will become available to educators in early 2009. Four other Northeastern states – Massachusetts, New Hampshire, New Jersey, and New York – also have or are in the process of implementing an online certification system.

SDE's new web-accessible certification system should result in a quicker and easier process for educators and department operations if it becomes available to the public in early 2009 as planned.

Educators probably should save time and money by using the new certification system. Applying online and the option to pay the certificate fee via credit card should eliminate the costs of printing and sending a hard-copy application, as well as of obtaining one of the currently-allowed methods of payment (certified check, money order, or cashier's check). The department's new ability to scan in all an applicant's submitted transcripts should mean that the educator no longer will need to obtain, pay for, and send in multiple transcript copies over a career. In addition, applicants' identities should be more secure. Each educator's primary identifier is to change to a random number from the Social Security number, which will still be collected for the purpose of background checks.

The certification unit likely should have more time to dedicate to reviewing applications or completing other tasks because the new system should reduce staff processing time, in several ways:

1. Fewer applications probably should arrive missing either paperwork or payment because the online application is to be fully submitted to the department only when finished and educators will be able to submit payment online. Incomplete applications currently require department staff to follow up with applicants and delay processing.
2. Administrative staff should have more time for other functions (e.g., scanning applicants' transcripts) because the new certification system is to automatically sort applications submitted online to the appropriate consultants, bypassing the process of administrative staff opening and manually sorting application envelopes. The automation of the sorting process also should result in fewer lost (hard-copy) applications, which infrequently happens with the unit's relatively high volume of applications.
3. The unit should spend even less time responding to Freedom of Information (FOI) requests because access to each educator's basic certification information will be available online. One certification analyst currently spends a small amount of time responding to FOI requests. Under the new certification system, anyone who

two weeks. This information was obtained through telephone and e-mail conversations with the certification units of those states. The unit in Rhode Island was unresponsive to several requests.

wishes to obtain certification information about an educator (level of certification and endorsement area) will provide his or her name and contact information online before being instantly given access to that web-based information.

The new certification system should also improve SDE's ability to check for public safety hazards. The system should store and run background checks of up to three former names, making it less likely that someone who has been convicted but has had several name changes will erroneously not show up on the background check.

Additional functionalities originally were proposed for the new certification system but were excluded due to cost. The proposed functions would have enabled Connecticut school districts and teacher preparation programs to submit applications online for their prospective teachers, higher education institutions directly to scan in transcripts, and the certification unit's manager to monitor analysts' workloads.

The program review committee recommends the State Department of Education consider providing the resources necessary to give the certification unit manager the ability to monitor certification analysts' workloads using the new certification system.

Giving the unit manager the ability to frequently monitor the progress analysts are making and track how long it takes for applications to be processed is one step toward more effective, ongoing oversight of the certification unit. This recommendation would enable the unit manager to adjust workloads more easily, assess analyst efficiency, and evaluate whether the processing goal of four to six weeks to certification is being met. Allocating funds in this way would help remedy the problem of limited oversight, as discussed later. Funding the other initially proposed functions would serve to make the application process more convenient, although the process currently is not unduly burdensome.

Application reviews. *There are no checks of whether certification applications were properly evaluated.* The unit does not conduct any type of review of evaluated applications to ensure the appropriate certificate and endorsement were issued, and the coursework requirements were met.

The program review committee recommends the State Department of Education's certification unit management should periodically review application materials and the certification decisions made by analysts, to ensure applications are being properly processed.

Certification analysts' main task is reviewing applications to grant certification. Systematic evaluation of application reviews is important to ensure this key unit function is performed accurately. The committee understands the time of the unit manager is limited but believes quality oversight is a good business practice and important to ensuring the unit is accomplishing its task of issuing certification appropriately. The unit manager is encouraged to delegate the responsibility for ongoing quality oversight to coordinators within the unit who are experienced certification analysts with that designation but who currently have no management responsibilities.

Thorough transcript reviews. “Thorough” transcript reviews involve checking applicants’ post-secondary transcript(s) to ensure the precise coursework requirements for certification and the endorsement(s) requested have been met. These reviews are conducted as part of the application evaluation process primarily for graduates of teacher preparation programs located in states with which Connecticut lacks a coursework recognition agreement, but also in certain instances for new graduates of Connecticut programs.³

The certification unit’s policy is to thoroughly review the transcripts of about 10 percent of graduates randomly chosen from each Connecticut teacher preparation program.⁴ This policy equates to at least 300 thorough transcript reviews per year; SDE does not track the quantity.⁵ The purpose is to check that approved programs are recommending only educator candidates who have met the state’s certification coursework requirements. The unit’s current policy holds Connecticut preparation programs to a different standard than those programs in interstate agreement states. Preparation programs in agreement states are never checked for compliance with certification regulations by SDE staff and might not be checked by their home-state departments of education.

The policy, however, does not unfairly discriminate against applicants from Connecticut programs because a recommended educator candidate from an in-state program whose transcript indicates incomplete preparation is still certified (except if a major component, such as student teaching, were missing). When an issue is discovered, the certification unit alerts the preparation program and orders the problem be fixed. SDE reports that in the last three years, this thorough review policy enabled certification analysts to detect five programs that were improperly recommending candidates who had not met the state’s certification coursework requirements, and then remedy the situation.

Another unit policy is to conduct thorough transcript reviews of *all* graduates of Connecticut educator preparation programs that either will be undergoing the state accreditation process in the coming year or currently are on state accreditation probation. The results of these reviews are used in the programs’ accreditation evaluations. The accreditation thorough transcript reviews have uncovered problems twice over the last three years, showing that these reviews sometimes illuminate problems. The number of thorough transcript reviews conducted in a year for accreditation purposes varies depending on which programs are up for re-accreditation and on probation because the size of the graduating class differs among programs, from about 240 in three programs to fewer than 50 in another three.⁶

³ Connecticut belongs to the NASDTEC Interstate Agreement, which enables participating states to recognize teacher preparation program completion as sufficient for meeting coursework requirements. Connecticut has an agreement on teacher preparation with 38 states and the District of Columbia.

⁴ Within each preparation program, at least one graduate from every endorsement area is audited, so the percent reviewed may be higher than 10 percent.

⁵ The approximation of 300 was calculated by PRI staff as ten percent of the annual average number of first-time certificates issued to completers of Connecticut educator preparation programs, according to data provided by SDE.

⁶ *Title II State Report 2007 – Connecticut*, SDE, submitted to the U.S. Department of Education. Accessed on November 14, 2008, at: <https://title2.ed.gov/Title2DR/CompleteReport.asp#Sec7>.

The program review committee recommends the State Department of Education should change its transcript review policies by reviewing the coursework of 25 percent of graduates (with at least one review of a candidate from each endorsement area) for Connecticut educator preparation programs that will be undergoing state accreditation review or are on accreditation probation, and expanding the review to include all graduates if any problems are found. At the same time, the current policy of reviewing the coursework of about 10 percent of all Connecticut educator preparation programs' graduates should remain unchanged.

This recommendation is intended to lessen the amount of staff time used to conduct thorough transcript reviews while maintaining review at a level sufficient to detect problems and provide information necessary to the state preparation program accreditation process. The current policy regarding review of preparation programs not under accreditation review should remain in place so that problems may be found quickly, as state accreditation review only occurs every fifth year.

Protecting the Public

The certification unit takes several actions to ensure certified educators will do no harm, and a few upcoming changes might further enhance public safety. *The certification unit has in place a process to detect and determine whether criminal convictions merit withholding certification – of both applicants and certified educators – that appears thorough and organized.* The unit's examination of those applicants who have been convicted will be formally tracked by the new certification system, enhancing SDE's ability to ensure the proper steps have been followed. Data on the numbers of applications evaluated by the department for conviction or potential misconduct problems and of certificate revocations due to convictions are found in Appendix B. The education department was scheduled to present statutory changes in this area to the State Board of Education in early December.

To assist districts from knowingly hiring educators who could do or have done harm, SDE annually sends to each district (including charter schools and state facilities) a list of all applicants whose certificate requests have ever been denied and all educators whose certificates have ever been revoked. The program review committee suggests the department annually send the list to private schools, to ensure private schools can make more informed hiring decisions and thereby protect their students from potential harm.

The department is expanding its activities to protect public safety. First, the background check will become more comprehensive under the new certification system as it will include up to three former last names, as described previously in this section. Second, the department's legislative package to be presented in spring 2009 likely will include a provision to require school districts to report to the department the name of any certified educator dismissed for cause (e.g., misconduct). The department will use this information to determine whether certification should be revoked, an investigation should be undertaken, or certification should be re-examined upon the educator's next application. Currently, there is no such requirement, so an educator who has been fired for misconduct and whose certificate is not soon expiring would not be detected and could seek a position in another district. Interviews held during this study revealed that in such cases, the former district often is reluctant to fully disclose the misconduct to the

future district and consequently the person is re-hired. This practice could pose a threat to the safety of Connecticut public school children and will be ended if the legislation is passed and compliance is effectively monitored by SDE.⁷

The program review committee recommends C.G.S. Sec. 10-145b(m) be amended to require local and regional boards of education to report to the Commissioner of Education the name of any certified employee dismissed for misconduct.

The commissioner's office may use the information to launch an investigation of whether the educator's certificate should be revoked under C.G.S. Sec. 10-145b(m)(1), following the procedures for standard revocation requests set forth in the education regulations (R.C.S.A. Sec. 10-145d-612 and -613). In this way, educators who have been fired for misconduct meriting certificate revocation will no longer be authorized to teach in any Connecticut position that requires certification.

Another issue regarding public safety that came to the committee's attention is that a few times a year, the twice-yearly run of the certification database against state criminal records newly shows an old conviction of a minor offense for a certified educator. The new "hits" for old convictions most likely are the result of a backlog in the data entry of convictions for minor offenses, according to the Department of Public Safety and the Office of Policy and Management, which has a key role in coordinating the state's criminal justice databases. A recent grant, however, is funding an effort to eliminate the data entry backlog. The result should be that the criminal conviction database will be up-to-date, so the department likely will stop receiving new hits for old convictions.

CEU Audits

Teachers at the highest level of certification (professional) must obtain nine continuing education units (CEUs) – equivalent to 90 hours – every five years.⁸ Other educator endorsements require varying amounts of continuing education credit to be obtained. The purpose of the CEU requirement is to ensure veteran educators are remaining up-to-date in their profession and continuing to work toward improving student achievement.

Five to 10 percent of educators applying for continuation of their professional certificates are randomly selected each year to be audited for compliance with the CEU requirement. An educator chosen for an audit receives a notification letter with instruction to send documentation verifying the continuing education requirement has been met, as was declared on his or her application. When sufficient documentation has been received (in the form of continuing education course completion certificates or a transcript showing all CEUs completed in the educator's school district), SDE issues the continued (i.e., renewed) professional certificate. If the documentation is not received, the educator's certificate may lapse, which makes the

⁷ Private schools' employees and employment practices are not regulated by SDE. Consequently, private schools may hire uncertified teachers and would not be subject to any law regarding reporting dismissals for cause to the department.

⁸ Certain teaching endorsements require a portion of the nine continuing education units (CEUs) be dedicated to certain topics. For example, all elementary, middle, and secondary endorsement holders are required to complete 1.5 CEUs in the use of technology in the classroom, and elementary teachers must also obtain 1.5 CEUs in teaching and assessing reading. See this study's briefing report for more information.

educator ineligible to be employed and, if the person is a teacher, accrue teachers' retirement credit. If some documentation has been received but is inadequate (e.g., does not meet the requirement for nine CEUs), SDE sends a letter notifying the applicant of the problem and stating that certification will lapse unless sufficient documentation is provided to the unit. One to two certification analysts are assigned solely to reviewing applications for continued professional certification and conducting CEU audits.

There currently is no oversight of CEU audits. The number, quality, and results of CEU audits are not tracked by certification staff. It is impossible for department management to check whether audits were conducted appropriately because CEU documentation provided by the educator currently is not consistently kept by the department once the audit has been completed. Due to the complete lack of data and oversight, any analysis of CEU audits could not be conducted as part of this study.

Oversight of CEU audits will be facilitated by the new certification system. The new system, when implemented, has three features that will enable oversight of CEU audit quantity and quality. It will have the capacity to maintain each educator's CEU documentation (to be scanned in by the department), track when an educator has been audited, and randomly select a percentage of applicants for audits.

The department also is in the process of gaining the ability to obtain CEU verification without even contacting educators. About half of Connecticut school districts pay for a web-based continuing education tracking and evaluation tool offered by an in-state company called ProTraxx.⁹ Continuing education transcripts kept by ProTraxx (or through other means by districts) may be submitted for CEU verification in lieu of course completion certificates issued to continuing education participants by districts or other providers. The education department currently is in the final stages of negotiating a contract with ProTraxx that would grant SDE certification analysts access to the ProTraxx files of educators applying for continued professional certification to conduct instant audits of their CEU work. If an educator did not have a ProTraxx file or appeared to have not fulfilled the CEU requirements, then the analyst would contact the educator to request hard-copy documentation, as is currently done.

Districts that choose not to purchase and use ProTraxx may pay for alternative tracking methods, devise their own method, or provide completion certificates and leave tracking CEUs to individual educators. (A district that selects the last option must still keep a record of the CEUs it has offered and who has participated, but need not keep individual educator records.) About 70 percent of the districts responding to the survey indicated they have an automated way of tracking educator CEUs.

A majority of the educator survey respondents believed their districts keep adequate CEU records. Educators who had applied for the continuance of a professional certificate theoretically needed to have their CEU documentation (in case of an audit) and therefore would be in the best position to judge whether the districts' record-keeping was sufficient. Of this group of educators, about 77 percent believed their districts keep sufficient CEU records, a percentage

⁹ ProTraxx's website is accessible at: www.protraxx.com.

that seems high until one considers how the other 23 percent (whose districts might not keep sufficient records) would have fared if audited.

The program review committee recommends the State Department of Education should use the new certification system's CEU-related abilities to implement oversight of CEU audits by tracking the quantity of the audits and conducting occasional checks of the audit quality.

Tracking of the quantity and quality of CEU audits has not been occurring, but it is necessary to ensure the unit is carrying out its task of overseeing compliance with certification requirements. The new certification system and potential ProTraxx contract will assist in the implementation of CEU audit oversight by: 1) enabling the number of audited educators to be counted; 2) allowing for overseers to instantly check ProTraxx continuing education transcripts for those audited who have such transcripts; and 3) storing scanned-in CEU documentation for overseers to review for fulfillment of the continuing education requirements. The department is encouraged to take any steps that would facilitate oversight of CEU audits until the above recommendation is implemented.

Approval and Oversight of CEU Providers

Continuing education units may be granted by organizations SDE has approved and by all school districts. *Although SDE reviews and approves the content of prospective continuing education courses before granting an organization permission to become a CEU provider, the certification unit's re-approval of those providers does not consider the quality of continuing education that has been delivered.* To obtain re-approval, a provider needs to submit only basic information on CEU activities that were offered (e.g., title) every six months. An approved provider that adds a CEU activity is supposed to inform the department via a form that asks for a brief description of learning outcomes and potential effect on student learning, but there is no formal SDE review of the new offering. The department's website lists approved CEU providers and their telephone numbers, but educators must directly contact CEU providers to learn about specific continuing education offerings.

The department requires districts and approved providers to collect and retain teacher evaluations of CEU activities but does not ask them to share the data or adjust CEU activity content based on the evaluations. Policies set forth in department documents state that CEU providers are supposed to collect and keep for 15 years participant evaluations of whether the activity allowed them to acquire knowledge, skills, and abilities toward improving student learning.¹⁰ It is unclear whether all providers collect the information because the department does not require any providers to submit evaluations for review.

¹⁰ *CEU Procedures Manual*, SDE, January 2001. Also: *Connecticut Guidelines for the Issuance of Continuing Education Units Required for Certification*, SDE, September 1999.

State law allows districts to be CEU providers without any review by the education department.¹¹ Districts may issue CEUs for whatever activities they wish and can choose any person or organization to lead the activities. SDE does not approve either the activities or the leader either prospectively or retroactively. Districts are required to offer 18 hours of free CEU activities annually, which totals 90 hours over five years, the amount an educator currently must obtain to earn a continued professional certificate.

The law also provides some guidance to districts on CEU expectations. First, the district is to have a comprehensive professional development plan that includes evaluation and improvement of the activities.¹² Second, the professional development offerings under the plan are to be developed with input from teachers.¹³ Third, the district is to be prepared to attest to SDE that CEU activities are assessed for effectiveness and aimed at reaching school or district goals.¹⁴

Each year in its application for state education funding, a district must attest that it has fulfilled all statutory responsibilities and requirements, but there is no consistent, systematic follow-up to ensure any of the continuing education statutory requirements were met. Data from the committee's surveys offer some understanding into whether districts are meeting their CEU offering requirements. Most districts appear to be fulfilling the responsibility to offer 18 hours of continuing education: the vast majority (93 percent) of educator survey respondents who hold a continued professional certificate either believed their district offers the required 18 hours of CEU activities annually or was not sure.

Districts might fall short of compliance with the other continuing education requirements, however. Nearly one-third (30 percent) of district survey respondents indicated teachers have not been involved at all in determining professional development offerings, which is a statutory obligation.

The program review committee recommends the State Department of Education periodically remind districts that Connecticut law requires professional development offerings be developed with the input of teachers.

Overall, the certification unit conducts some limited oversight of non-district CEU providers and effectively no oversight of district providers. The committee recognizes that while both types of providers are supposed to be collecting participant evaluation data, SDE does not ask for this data in an effort to evaluate providers and improve continuing education. More comprehensive, consistent department oversight likely would improve the relevance and effectiveness of CEUs, but probably would require substantial staff resources not currently available. The proposed new professional development system described in Section IV aims to improve the quality of professional development by providing guidelines for which types of activities teachers may earn re-certification credit, in lieu of focusing on a costly oversight effort.

¹¹ C.G.S. Sec. 10-145b(1)(1)(D). Districts may also arrange to award their employees CEUs from continuing education activities at RESCs or other districts, instead of providing the activities in-district.

¹² C.G.S. Sec. 10-220a(b)

¹³ C.G.S. Sec. 10-245b(1)(1)

¹⁴ C.G.S. Sec. 10-145b(1)(2)

Outreach on Certification Requirements

The certification unit undertakes limited efforts to inform prospective, new, and current educators of what must be done to obtain and retain the state certification necessary for public school employment. Other outreach efforts clarify what district personnel must do and know to make sure employees are properly certified for the positions held, as required by law.

The certification unit has conducted some outreach to prospective and new educators, as well as to districts, but reports being recently constrained in its outreach efforts by resource levels. Outreach mainly is conducted when an organization requests it.

Certification staff over the last couple of years have made presentations to students at a few high schools upon the schools' requests and been available to the public at a handful of job fairs. The unit used to send staff to more job fairs but found participants wanted either general information accessible on the Internet or coursework evaluations that could not be performed on-site. Consequently, the certification unit narrowed its efforts to job fairs focused on targeting SDE's priority recruitment populations: minority group members, military personnel, and prospective urban district teachers.

Unit staff makes presentations on certification requirements at least annually to teacher candidates in about half of Connecticut's teacher preparation programs. The department reports that all in-state programs know staff is willing to present; SDE does so when invited.

The unit takes two steps to ensure certified educators are properly informed of certification requirements. First, each educator who receives a new certificate is sent notice of the requirements to advance or retain certification. Second, six months before the educator's certificate expires, a letter is sent as a reminder to re-apply for certification. The new certification system will allow the reminder to be sent via e-mail, a change that likely will save the department money and time. It is also possible the e-mail reminder will more often reach its recipient: the department estimates 30 percent of mailed reminders are returned due to outdated addresses.

Certification staff also conducts workshops open to district personnel involved in hiring efforts. The department reports it encourages principals to attend, since they are the group most likely to lead recruitment and hiring efforts, but few do, possibly because of time constraints. The unit formerly gave one workshop annually at three locations around the state until the effort was stopped last year due to a lack of staff resources, according to SDE. One workshop at a single location was held this fall, but the department reports demand was far higher than the 140-participant capacity. During the workshops, SDE occasionally has offered to give presentations to individual districts, but the offer has not been given in a systematic way to all districts, and few have taken advantage of it. In addition to the workshops, SDE presents on the importance of hiring only certified educators and on the certification compliance process (explained in Section III of this report) as part of the Teachers' Retirement Board's annual workshop to instruct district personnel on how to properly enter and send data for teacher retirement purposes.

General Output Measures

The unit manager (who is also a bureau chief) has little control over expenditures. The manager may request new projects or resources but any such requests must be approved by the department's budget division. The department manages the budget and staff resources of the certification unit's bureau as it does with others; this top-down approach gives the bureau chief minimal control over those resources. The bureau chief does not develop a formal fiscal plan. The certification unit's expenditures were approximately constant in the last two fiscal years, after adjusting for inflation, as shown in the committee's June briefing report.

The amounts of certificate materials handled and staff who work on issuing certification have remained about the same over the past three fiscal years. Table I-1 shows that the number of certificates, permits, and authorizations issued stayed nearly constant, around 22,500, while the amount of applications increased slightly, to nearly 25,000 in FY08. (There is a discrepancy between the numbers of applications received and certificates issued because some applications are incomplete or fall short of meeting the certificate requirements.) The program review committee recognizes that the certification unit completes additional tasks and that other aspects of performance (e.g., how quickly complete applications were processed) also are not included in these measures, but this information is given because it is the only output data consistently tracked by the unit. By these measures, the certification processing workload of the certification unit has been stable.

Table I-I. Applications Received and Certificates Issued: FYs 06 through 08				
	<i>FY06</i>	<i>FY07</i>	<i>FY08</i>	<i>Change from FY06 to FY08</i>
Applications received	24,230	24,328	24,945	3.0%
Certificates issued	22,564	22,513	22,448	-0.5%
Source of data: SDE				

The number of administrative staff increased somewhat, but the analyst staff, which determines whether certification should be issued, contracted slightly over the three-year period analyzed, as depicted in Table I-2. The change in staffing levels was due mainly to the need for increasing the teacher preparation program approval analyst staff to two persons, which meant moving a certification analyst to the program approval function within the unit. That move caused subsequent shifting of other personnel.

Over the past three years, then, a decreasing number of full-time equivalent certification analysts has been evaluating an increasing number of applications. The higher workload for analysts appears not to have resulted in unreasonable slow application processing, based on analysis provided earlier and the survey respondents' high level of satisfaction with the processing timeframe (detailed in Section II).

Table I-2. Full-time Equivalent Certification Unit Staff: FYs 06 through 08*

	<i>FY06</i>	<i>FY07</i>	<i>FY08</i>	<i>Change from FY06 to FY08</i>
Administrative staff	5.0	5.3	6.1	22.6%
Analyst staff	14.0	13.2	12.0	-7.4%

*Only staff members who work on processing and reviewing certification applications are included. Those who were assigned to teacher preparation program approval (two full-time analysts), developing teacher certification regulations (one analyst), investigations of revocation requests (one investigator in FY08), and oversight (one unit manager) were excluded since they did not contribute to the unit's "output" of applications received and certificates issued. The number of full-time equivalent staff is presented as rounded but was not rounded to compute the "Change from FY06 to FY08" column.
Source of data: SDE

Management Oversight

There is little oversight conducted of certification output and staff at the unit level, and none at the broader division level within the department. At the unit level, the quantity of certifications, permits, and authorizations produced per analyst seems to be one of the only outcomes that is consistently measured and reviewed. Other key aspects of performance are not formally assessed, including the quality of application reviews and the quality and quantity of CEU audits.

The certification unit is part of the Division of Teaching, Learning and Instructional Leadership. At the division level, no specific or general expectations have been set for the certification unit regarding application processing, customer service, monitoring whether districts have hired only certified educators, or any other key task. The lack of division-level oversight appears to have existed for many years. Recent turnover left open for about one year the associate commissioner position that oversees the division. An educator new to the department recently has filled the vacancy.

The program review committee recommends the State Department of Education more effectively oversee certification at both the unit and division levels. This includes developing performance measures and objectives of key functions within the unit and monitoring the unit's performance based on those measures and objectives.

Section II: Customer Service

A second key component of this study was to assess the certification unit's overall responsiveness to its customers. A randomly selected group of educators that had contact with the certification unit over the past year, as well as human resource directors from each local and regional school district in the state were surveyed as part of this study. The purpose of the two surveys was to gain an understanding of how educators and districts – as the certification unit's main customers – perceive the overall level of customer service provided by the unit. Questions on the surveys reflected key topic areas for each group, and the survey responses were anonymous. Copies of the surveys are found in Appendix A, along with information about the survey methodologies and a summary of descriptive information about the respondents. The survey results regarding customer service are discussed below.

EDUCATORS

The certification unit is responsible for responding to and assisting past, current, and prospective educators. The unit handles questions, information requests, and certification application materials from thousands of educators during the course of a year. As such, educators account for the bulk of the certification unit's customer base.

The survey solicited information about educators' experiences with the certification unit from a customer service perspective. Of the 1,521 educators who were mailed surveys mailed, 428 (28 percent) responded. Most of the questions asked educators to rate their level of satisfaction regarding specific services provided by the unit. The following four key service components of the certification unit were identified:

- phone (i.e., ability to speak with a certification analyst during the unit's designated times);
- e-mail;
- websites (SDE maintains two websites containing information about state certification); and
- regular mail service (interaction with the unit to obtain information, excluding submitting application forms by mail).

It should be noted that the survey results presented are only for those respondents who actually rated the service and had used the service within the past year. The one-year timeframe was used to provide survey respondents with a period long enough to have used the unit's services and short enough to accurately recall their satisfaction with the services. The committee believed this timeframe would produce more current and relevant survey responses.

Overall Satisfaction

Survey recipients were asked to rate their *overall satisfaction* with the certification unit's service in each of the four service areas noted above. Educators gave their satisfaction levels for

each of these services using a four-part rating scale, ranging from “very satisfied” to “very dissatisfied.” Table II-1 shows the results of the survey responses.

Table II-1. Overall Satisfaction with Certification Unit Services: Educators				
<i>Service*</i>	<i>Very Satisfied</i>	<i>Satisfied</i>	<i>Dissatisfied</i>	<i>Very Dissatisfied</i>
Phone (n=239)	43%	38%	13%	6%
E-mail (n=192)	32%	47%	13%	7%
Websites (n=335)	27%	59%	13%	2%
Regular mail (n=182)	39%	51%	8%	2%

*Each service either had missing responses or responses indicating the service was not used, which account for the differences in the number of responses analyzed.
Source: PRI Survey.

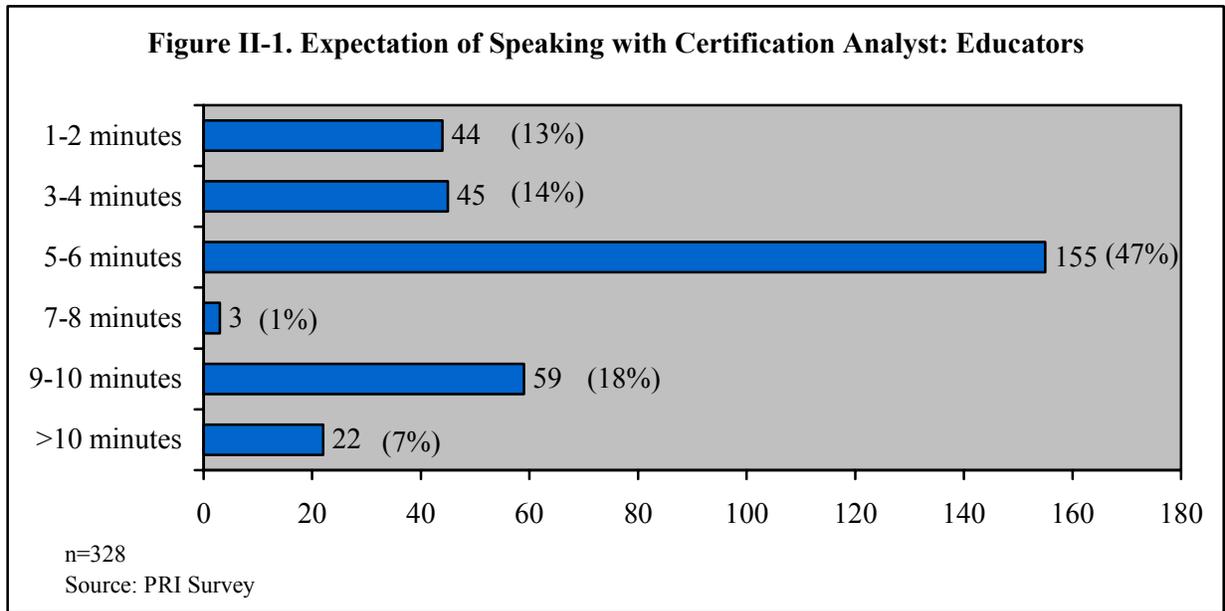
The overall satisfaction levels among educators for the services provided by the certification unit were high. For each of the four service components, respondents answered they were either “satisfied” or “very satisfied” with the service they received at the following rates: phone (81 percent); e-mail (79 percent); websites (86 percent); and regular mail (90 percent). The survey results show a consistently high level of satisfaction among educators for each of the services provided by the certification unit.

Timeliness

Two specific survey questions focused on the timeliness of the certification unit’s phone and e-mail services. First, educators were asked ideally how long it should take to speak with “a person knowledgeable about certification” during the unit’s designated calling times¹⁵ and whether or not their expectation was met when they called the unit over the past year. Second, educators were asked a similar question about the expected and actual response times they experienced using the unit’s e-mail service. Educators were also asked to rate the certification unit’s overall timeliness in processing applications, as discussed in Section I.

Phone service. Figure II-1 illustrates how educators responded when asked ideally how long it should take before they speak with someone knowledgeable about certification when they call during designated calling times. *Almost three-quarters said they should be able to speak with someone within six minutes or less, while 93 percent responded within 10 minutes. Although not shown in the figure, 74 percent of respondents indicated these time expectations were met when they called the unit.*

¹⁵ The certification unit has specific hours during the week open for the public to call and speak directly with one of the several certification analysts staffing the phone lines during those hours. Analysts are available to answer calls via the designated phone lines on Mondays, Tuesdays, Thursdays, and Fridays from noon to 4:00 p.m.



Wait times may vary widely depending on multiple factors, including the volume of calls received at the same time. When contacted as part of this study, the surrounding states of Massachusetts and New York indicated callers typically have to wait before their calls are answered by certification staff.¹⁶ For example, the average wait time (across the whole day) to speak with an analyst in Massachusetts is just over two minutes, although it was noted that wait times indeed vary and can be as long as 15-20 minutes during periods of heavy call volume. New York simply mentioned there is always a wait for callers given daily call volume.

To further gauge the level of phone service provided by the certification unit, actual call data were obtained from the unit for January through August 2008.¹⁷ The information was specific to the phone lines open to the general public staffed by certification analysts, and included: total calls received per day; length of wait time; and length of talk time between the analyst and the caller. Table II-2 summarizes the call information.

Even though the certification unit does not have a specific standard for how long someone should be placed on hold before they speak with a certification analyst during the designated calling hours, it is clear from the information in Table II-2 that the average length of time callers remain on hold (1 minute 30 seconds) is well within the range they expect, as presented in Figure II-1. As such, the committee concludes that *the timeliness of the certification unit's phone service is satisfactory and meets the public's needs*. It should be noted the certification unit also offers a 24-hour automated phone system allowing educators to receive updated information on certification status or to request information, which was not included in the above analysis because the system is instantly accessible.

¹⁶ Rhode Island does not have phone service.

¹⁷ Data for previous months were not stored by the department.

Table II-2. Certification Unit Dedicated Phone-Line Volume: January – August 2008			
<i>Month</i>	<i>Calls Received (monthly)</i>	<i>Caller Hold Time (minutes)</i>	<i>Minutes Spent with Caller</i>
Range	1,910 -- 2,643	1:04 -- 2:12	3:34 -- 3:59
Average	2,098	1:30	3:43
Total	18,506	NA	NA
Source of data: SDE			

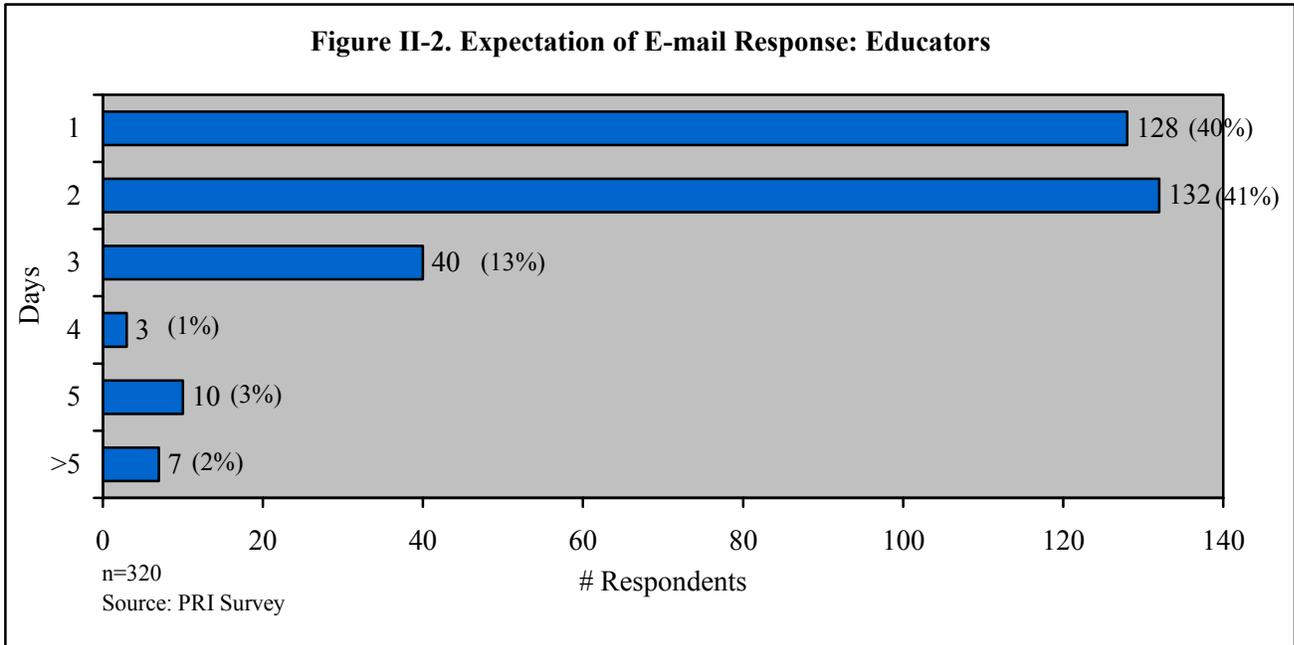
In addition to phone service questions on the survey discussed above, educators were asked whether, if they were to choose, the certification unit should maintain its live phone service staffed by certification analysts or use the analysts' time to process applications and respond to e-mail. *Of the 404 educators responding to the question, almost three-fourths (72 percent) said they would choose to keep the live phone service.* This is an indication the general educator public sees a definite benefit in being able to speak with a certification analyst to resolve questions.

E-mail service. E-mail has become a highly-used means of communication within the certification unit, both for its expediency and for producing a written record of discussions with educators, districts, and the public at large. E-mails may be submitted directly to the certification unit using a designated e-mail address. The e-mails received by the unit are reviewed by administrative staff and then forwarded to the appropriate certification analyst for attention each day.

The unit's standard for responding to e-mail requests is indicated on the main certification website.¹⁸ During the normal volume times of October through April, the standard is 5-7 business days. The website notes this standard could double during times of heavier volume, typically experienced May through September.

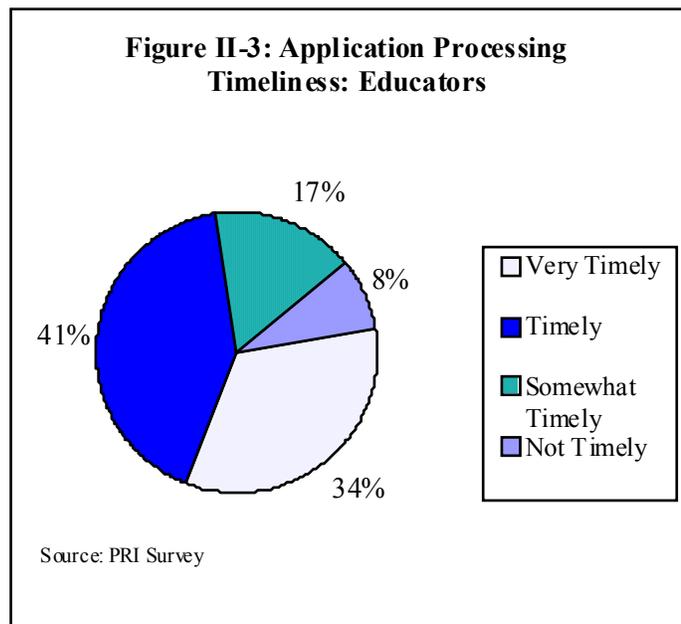
As Figure II-2 illustrates, *81 percent of surveyed educators indicated they expected the certification unit to reply to an e-mail request within two days, while an additional 13 percent had an expected time of within three days.* Although not shown in the figure, the survey also revealed *71 percent of educators indicated their time expectations were met when they e-mailed the unit.*

¹⁸ <http://www.ctcert.org/certprocess.html>



It is difficult to fully determine whether the unit’s standard for responding to outside e-mail is achieved because response times are not formally tracked by the unit. Based on the survey results, though, a majority of educators was satisfied with the unit’s e-mail response times over the past year. The unit estimates about 45 new e-mails arrive each day and are distributed to certification analysts.

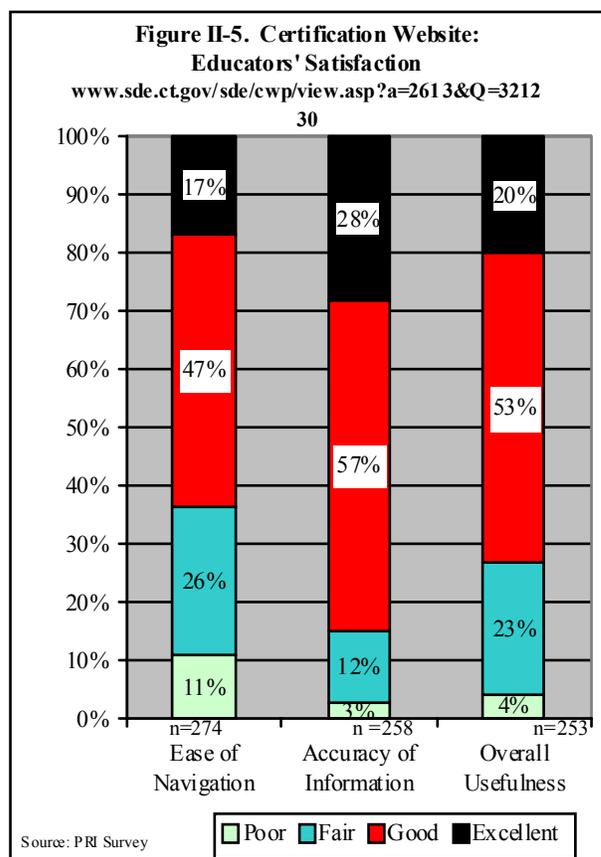
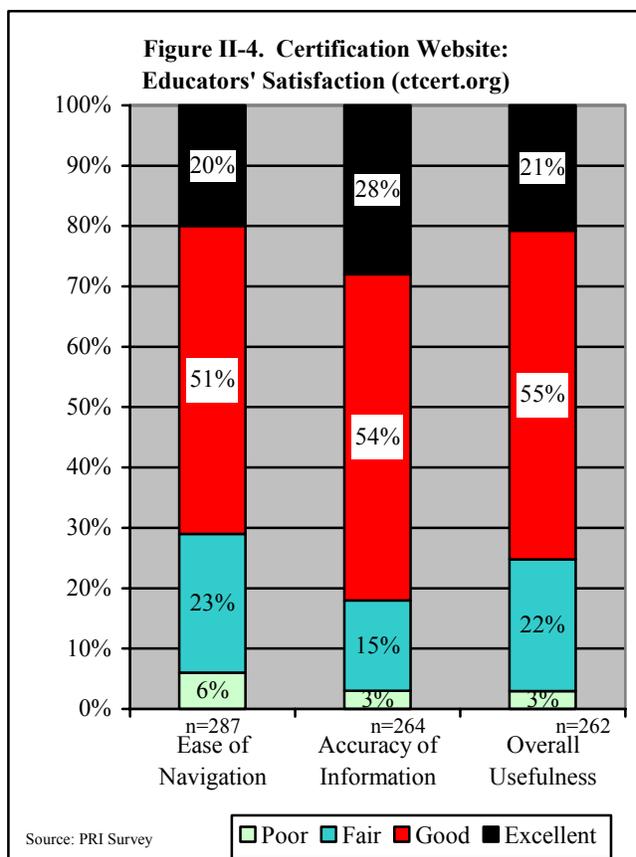
Application processing. As discussed in Section I, a central function of the certification unit is processing applications for certification. Educators were queried to determine their satisfaction level with the unit’s speed in processing applications. Figure II-3 shows 92 percent rated the unit’s application review process timely. The survey results indicate a high level of satisfaction among educators with how quickly their applications were processed by the certification unit. (Although the rating “somewhat timely” could be interpreted as an educator rating the timeliness either positively or negatively, the committee construed this rating as an indication the educator thought the process was timely to a degree.)



Websites

The Internet is an ever-expanding and widely used resource for the public to obtain certification information. SDE maintains two websites that provide certification information. The first site (www.ctcert.org) serves as the public's main portal to information about Connecticut's certification process and requirements for educators. The second site (www.sde.ct.gov/sde/cwp/view.asp?a=2613&Q=321230) is actually the homepage for the SDE Bureau of Educator Preparation and Certification, accessible through the department's main website. The bureau's site offers similar information to that found on the main certification site, while including additional information about certification, professional development requirements, teacher preparation programs, and processes on becoming a certified teacher in Connecticut. Each site links to the other.

Given two separate websites exist within SDE to provide educator certification information to the public, educators were queried on both sites. Questions about each website's "ease of navigation," "accuracy of information," and "overall usefulness" were included in the survey. The results for the www.ctcert.org site are highlighted below in Figure II-4, while results for the bureau's homepage are shown in Figure II-5.



The figures show there was general consistency among educators responding to the survey questions about the certification websites, with most rating the sites favorably. Over 70 percent of the respondents rated the sites either “excellent” or “good” for each of the components, including “overall usefulness.” The only category not rated as excellent or good by at least 70 of the respondents was the “ease of navigation” component of the bureau’s homepage (64 percent). Although www.ctcert.org is considered by many as the primary state website for educator certification, the bureau’s site provides important information that should be accessible by the general public as easily as possible.

The two sites were used over the course of this study to help understand the certification process and collect information. Although the sites received generally good ratings from educators in the survey, the sites could be improved, particularly the bureau’s site. This site contains useful information, yet some of the information was outdated and the site generally was difficult to navigate, which is consistent with the survey results. The bureau is aware improvements are necessary, as noted in discussions during this study. However, the technical personnel within the certification unit and department who would help design a more user-friendly bureau website have been heavily involved with the development and planned implementation of the unit’s new certification system. The committee understands the finite resources available for technical purposes, including website development. As such, the bureau and the department are encouraged, at the conclusion of the certification system project, to review and make the necessary improvements to the certification websites to increase the sites’ navigability and make the sites’ information comprehensive and current. These changes will improve the unit’s overall level of customer service to the public.

Service Thoroughness and Consistency

Educators were asked to rate the thoroughness and consistency of the information they received from the certification unit. The survey solicited responses for each service component used (i.e., phone, e-mail, etc.). “Thoroughness” was considered to mean the information received adequately answered educators’ questions or met their information needs, and “consistency” was considered to mean every time a method was used, the information received was consistent. Table II-3 shows the results.

Table II-3. Service Thoroughness and Consistency: Educators				
<i>Service</i>	<i>Both Thorough, Consistent</i>	<i>Thorough, Not Consistent</i>	<i>Consistent, Not Thorough</i>	<i>Neither Thorough nor Consistent</i>
Phone (n=233)	72%	13%	7%	8%
E-Mail (n=179)	69%	11%	8%	11%
Websites (n=309)	62%	9%	23%	7%
Regular Mail (n=170)	75%	6%	8%	11%
Source of data: PRI Survey				

Educators, for the most part, found the information received from the certification unit via the four service components to be both thorough and consistent. The only anomaly in the responses is the overall lag of the websites: 30 percent of the respondents indicated the information on the websites was either consistent but not thorough, or neither. Otherwise, *generally 7 out of 10 educators rated the information received from the unit as thorough and consistent*, comparable to educator responses to other customer service questions on the survey.

SCHOOL DISTRICTS

A second key constituency of the certification unit is school districts, specifically, human resources directors within districts. Human resources personnel typically have the most contact with the SDE certification unit.

Somewhat similar survey questions were asked of the district directors as of educators, with additional questions when necessary. The survey questions covered four topics: 1) customer service; 2) compliance with certification requirements; 3) continuing education; and 4) other. This section focuses on the district responses regarding the unit’s customer service; survey results from the other topics covered by the survey (e.g., continuing education) are included in other sections of this report. Of the 171 surveys mailed, 116 districts (68 percent) responded. As with the educator survey, the information presented below is only for those who responded to both the survey and rated the survey item.

Overall Satisfaction

Districts rated their overall satisfaction levels for each of the four main services provided by the certification unit, as shown in Table II-4. The ratings ranged from “very satisfied” to “very dissatisfied.”

Table II-4. Overall Satisfaction with Certification Unit Services: Districts				
<i>Service*</i>	<i>Very Satisfied</i>	<i>Satisfied</i>	<i>Dissatisfied</i>	<i>Very Dissatisfied</i>
Phone (n=109)	74%	25%	1%	0%
E-mail (n=100)	64%	32%	4%	0%
Websites (n=103)	49%	48%	4%	0%
Regular Mail (n=53)	51%	45%	4%	0%
*Each service either had missing responses or responses indicating the service was not used, which account for the differences in the number of responses analyzed and the 116 total surveys received. Source: PRI Survey				

The overall satisfaction levels among educators for the services provided by the certification unit were very high. For each of the four service components, respondents answered they were either “satisfied” or “very satisfied” with the service they received at the following rates: phone (99 percent); e-mail (96 percent); websites (97 percent); and regular

mail (96 percent). Unlike the responses from educators, no district indicated it was “very dissatisfied” with the overall level of services provided by the certification unit.

Timeliness

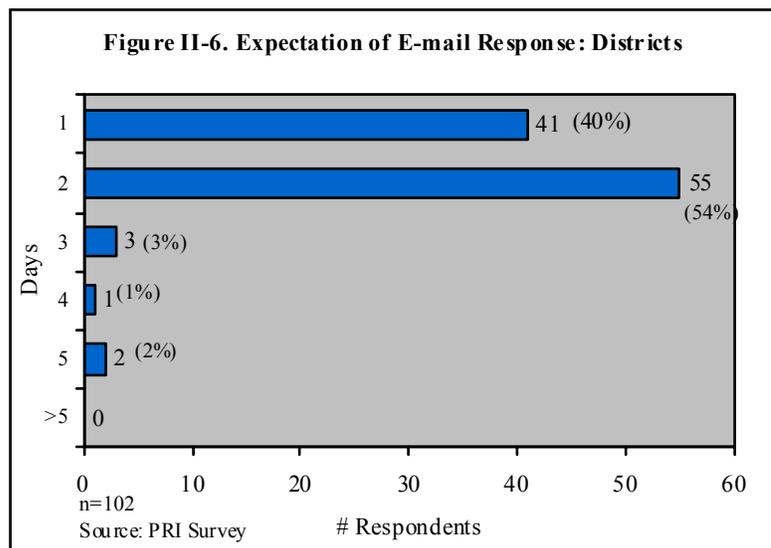
Districts were asked to rate their satisfaction with the unit’s phone and e-mail services. The certification unit has a phone line specifically for districts to speak directly with a certification analyst. The district phone line is available more frequently than the public line: three days per week for eight hours each day, and four hours a day for the other two days. One designated certification analyst is responsible for the district phone coverage. The same analyst is responsible for handing district e-mails as well, and districts may use the analyst’s direct e-mail address when communicating by e-mail.

Phone service. Districts were asked ideally how long it should take to speak with “a person knowledgeable about certification” during the unit’s designated calling times. It was clear from the responses, however, that some districts interpreted the question to include the time it should take the certification unit to return a phone call, and not just how long a district is willing to remain on hold before the call is answered. As a result, the committee did not draw any conclusions about the ideal time districts expect to speak with a certification analyst when calling the unit.

Districts also were asked whether their expectation was met when they called the unit over the past year. This question and the question about ideal answering times can be analyzed independently. Under this premise, there is value in examining whether districts believe their expectations were met regarding the certification unit’s timeliness to respond to calls from districts. The survey revealed 97 percent of districts calling the unit indicated their expectations were met for how long it took to speak with someone knowledgeable about certification issues.

Districts also were asked whether, if they had to choose, the certification unit should maintain its live phone service staffed for districts or use the analyst’s time to respond to e-mail and process applications. Of the 111 districts responding to the question, 92 percent chose to keep the phone service dedicated solely to districts. Again, this is an indication the live phone service available within the certification unit is a benefit to those district personnel who have questions about certification.

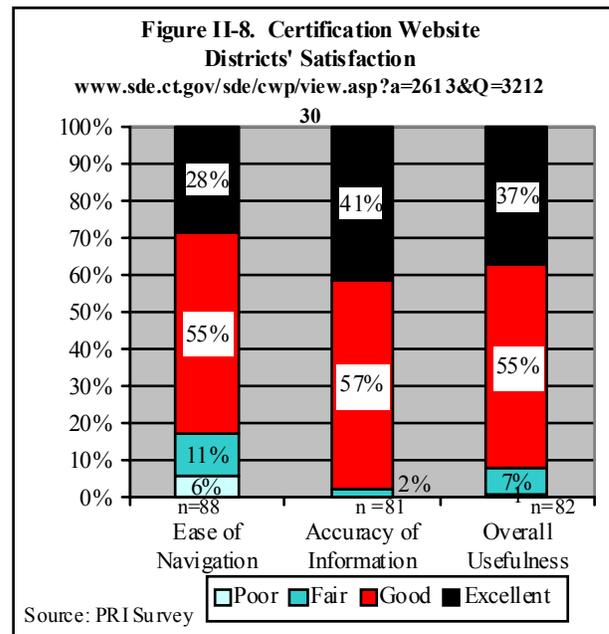
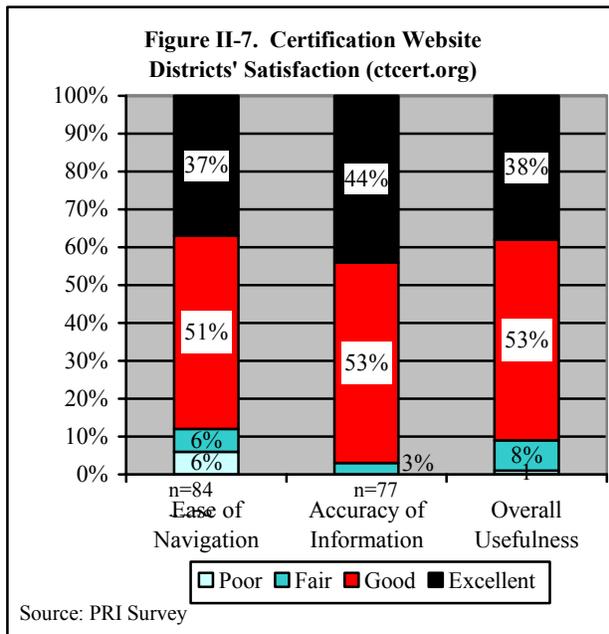
E-mail service. Districts may correspond by e-mail directly with the certification analyst who staffs the district phone line. Figure II-6 shows 94 percent of district respondents indicated they expected the certification unit to reply to an e-mail request within



two days, while 100 percent had an expected time of within five days. Although not shown in the figure, the survey revealed 89 percent of districts indicated their time expectations were met when they e-mailed the unit.

Websites

Districts were asked similar questions as educators about the state’s two certification websites. The questions queried districts on their experiences with the websites regarding “ease of navigation,” “accuracy of information,” and “overall usefulness.” The results for the www.ctcert.org site are highlighted below in Figure II-7, and results for the bureau’s homepage are shown in Figure II-8.



The figures show there was a relatively high degree of uniformity among educators favorably responding to the certification websites. Generally around 90 percent of the respondents rated the sites as either “excellent” or “good” for each of the components, including “overall usefulness.” Again, however, the “ease of navigation” component for both websites received lower ratings, particularly the bureau’s website.

Service Thoroughness and Consistency

Districts rated the overall thoroughness and consistency of the information received from the certification unit by service component used (i.e., phone, e-mail, etc.). As in the educators’ survey, “thoroughness” was considered to mean the information received adequately answered district questions or met their information needs, while “consistency” was considered to mean every time a method was used, the information received was consistent. Table II-5 shows the results.

Table II-5. Service Thoroughness and Consistency: Districts

<i>Service</i>	<i>Both Thorough and Consistent</i>	<i>Thorough, Not Consistent</i>	<i>Consistent, Not Thorough</i>	<i>Neither Thorough nor Consistent</i>
Phone (n=108)	92%	6%	2%	1%
E-Mail (n=101)	85%	7%	4%	4%
Websites (n=94)	88%	2%	6%	3%
Regular Mail (n=55)	82%	15%	4%	0%

Source of data: PRI Survey

A high percentage of districts (ranging from 82 to 92 percent) responded that the information they received from the certification unit was both thorough and consistent for each of the four service components. The responses, overall, were consistent across the four service components, with the exception of the regular mail service, in which roughly double the responses thought the service was thorough although not consistent. Otherwise, nine of ten districts typically thought the unit provided information that was both thorough and consistent, regardless of the method of service used to obtain the information.

SUMMARY

Overall, relatively high percentages of educators and districts favorably rated the certification unit’s customer service, according to the survey results presented in the above analysis. Each of the four service components generally received high marks from the unit’s main customers, with districts more favorably rating the services. The committee believes the unit should strive further to ensure its customers continue to receive prompt, thorough, and complete service and information.

The program review committee recommends the State Department of Education’s certification unit, as part of its management oversight process, periodically elicit feedback from its customers to determine satisfaction with: 1) the unit’s timeliness in responding to calls and e-mail, and in processing certification applications; and 2) the overall thoroughness and completeness of the information provided to educators, districts, and the general public. The techniques used to receive such feedback should be determined by the certification unit.

The certification unit has conducted customer service surveys in the recent past to collect feedback from educators who had just received their certificate from SDE. A similar, but expanded, effort for all of the unit’s customers on a periodic basis could provide useful information to the certification unit about level of service and how it could be improved to best serve its customers. Such an effort should be designed by the certification unit to ensure it meets the unit’s needs and can be accomplished with a realistic level of resources.

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Section III: Compliance

Compliance with State Certification Requirements

It is a state and federal requirement that students are taught only by teachers who have met a set of certification standards. The goal is to ensure teachers are qualified for their positions. Critical to reaching this goal is having an effective system within the State Department of Education to oversee the efforts of school districts, ensuring all classroom teachers are qualified in accordance with Connecticut's certification requirements.

Connecticut state law requires teachers employed in a local or regional school district possess an appropriate state certificate. Each certificate level – initial, provisional, and professional – has its own set of requirements. Attached to the certificate is a subject and grade-level endorsement that authorizes the teacher to take a certain assignment. The endorsement also has specific preparation requirements. The State Board of Education has the authority to issue certification to qualified applicants, a task that is carried out by SDE.

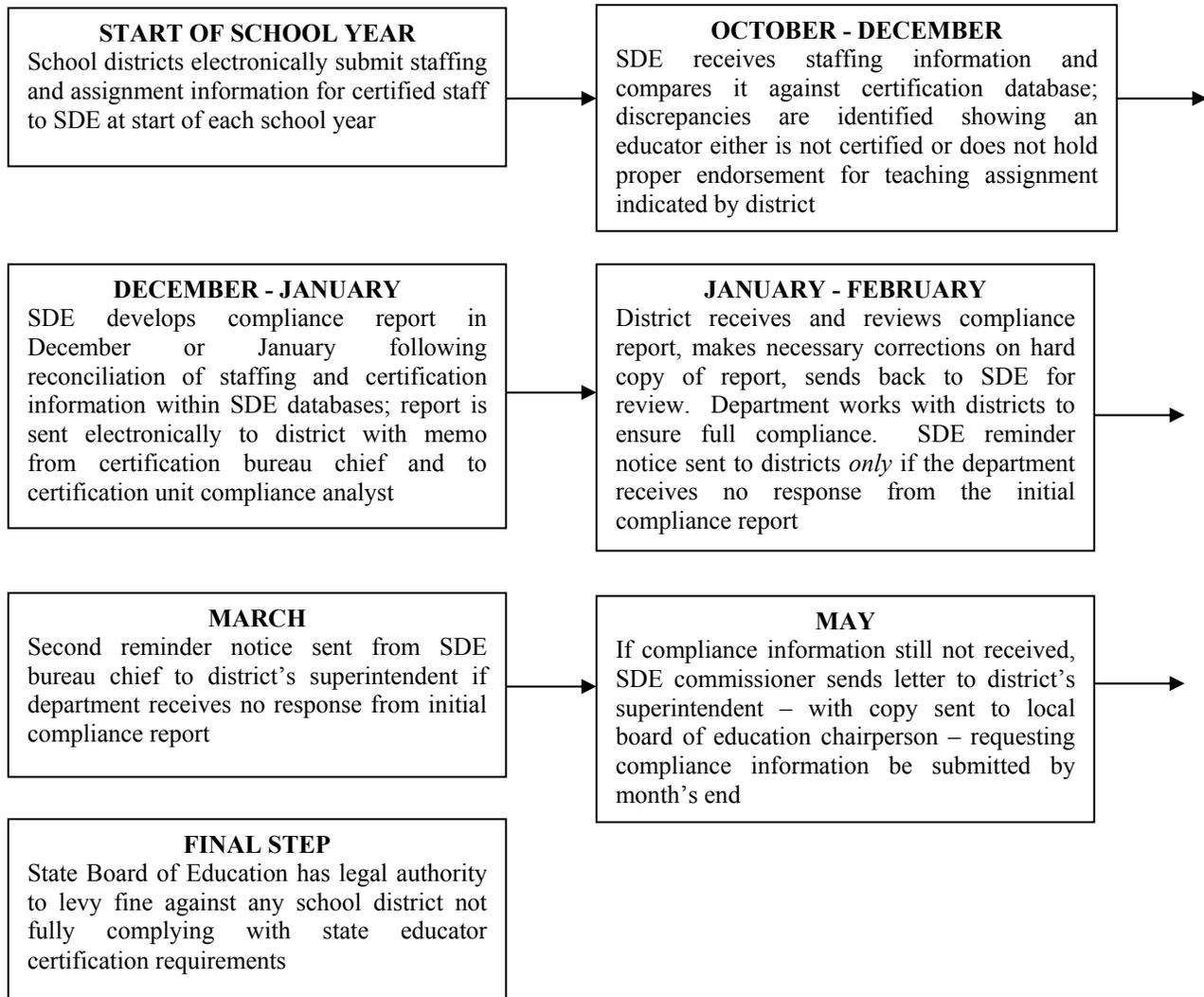
The State Board of Education also is charged with ensuring districts assign educators to positions for which they are properly certified. Districts must submit information to SDE annually about their educators' assignments. The department reviews the information to make sure districts have educators serving in positions for which appropriate certification is held.

The education department's oversight system established to ensure school districts comply with state teacher certification requirements was examined. The system was specifically reviewed to determine: 1) the efforts undertaken by the department and state education board to make sure school districts comply with certification requirements for educators; and 2) districts' level of compliance. Compliance information received from the department included data for all certified staff: teachers, administrators, and student support specialists (e.g, school psychologists). As such, the analysis, findings, and recommendations provided below encompass the compliance system for all certified educators, including teachers.

Certification Oversight System

SDE has a system in place to oversee the efforts of local school districts to comply with state certification regulations for educators. Although the system's basic framework has been in place for roughly two decades, the compliance process has become more formalized over the past several years. The department has adopted a more structured system to track districts' compliance efforts and kept more detailed aggregate reporting of districts that are not complying with certification requirements. Figure III-1 highlights the key components of the department's certification compliance process.

Figure III-1. SDE Educator Certification Compliance Timeline



The certification compliance process begins with each district submitting to SDE its “staff file” information. The information includes staff names, assignments, and endorsement information as determined by the district at the beginning of each school year.

School districts send their staffing, assignment, and endorsement information electronically to the department’s Data Collection and Management Unit within the Bureau of Data Collection, Research and Evaluation. Districts have limited access to the staff file, although they may read information and directly submit and update personnel information for their district.

District staffing and assignment information is maintained by the department's data collection unit in one database. A separate database within the department houses educators' certification information, including information about an educator's level of certification and specific endorsement(s). One person within each of the certification and data collection units has primary responsibility for managing the respective databases.

The department generally provides a period of time after the start of the school year for districts to submit their staffing information. Once the information is submitted, SDE reconciles educator staffing information with the certification database information. Upon merging the relevant information of the two databases, the department identifies the educators within a school district who either: 1) have *not* received a state certificate; or 2) have a teaching assignment code listed by the district that does not match the endorsement information on record with the department. In either case, the district is deemed to be in non-compliance with the state's certification requirements for educators. It should be noted that the department holds districts – not educators – primarily responsible for making sure their certified staff are working in assignments for which they hold the proper certification. Educators may, however, lose retirement credit for not being properly certified.

Once a complete listing of educators by school district is finalized by the data collection unit, the information is synthesized into a compliance report. The report highlights for the district the key information for each educator where discrepancies exist between the staffing information submitted by the district and the certification information maintained by the department. The report is then sent electronically to a designated contact person within the district responsible for managing the staffing information. At this time, the department also sends each school district a report indicating all the certified educators within a district whose certificates are set to expire within the next 18 months. This report alerts districts as to which of their certified staff will need to address certification status within the upcoming year and a half or risk being identified through the compliance process as out of compliance.

Although districts may update their staff file information with SDE as hiring and assignment decisions are made, the department bases its compliance reports on the staffing and teaching assignment information on record with the department the day when SDE runs its annual compliance report. The report generally is produced during the one-month period between mid-December and mid-January each year. The department noted during this study that it makes a concerted effort to ensure the overall completeness and accuracy of the information received from districts. The database manager sends a memo to all districts indicating when the final analysis of the staff file will be made, thereby notifying the districts to submit any outstanding information.

Once produced, the compliance report is sent to an experienced certification analyst within the certification unit responsible for completing the compliance process. The compliance function is only part of the analyst's overall responsibilities, which also include reviewing certification applications, assisting with the unit's dedicated phone lines used to handle certification-related inquiries, and helping to evaluate whether certification should be issued to an educator who has been convicted or dismissed from a position. The analyst has been responsible for the compliance function for just over a year, and estimates 60 percent of her time is spent on compliance-related matters from December through May.

Once districts receive the compliance report from SDE, there is generally communication between the department and districts to ensure the accuracy of the information. Districts submit notice of necessary corrective actions taken to reach full compliance with certification requirements (e.g., assignment change, released from duty, obtained proper certification). Districts are first required to indicate on a hard copy of the compliance report the specific corrective measures taken. The department notes that, at times, a simple administrative error in the district staff file caused the compliance issue and that those are easily resolved between the district and the department. Data on the level of compliance by district are presented later in this section.

The SDE certification analyst overseeing the compliance process reviews the second-round information submitted by the districts. If the original compliance problems have been resolved or if there were no problems in the first place, the district receives a letter from the certification bureau chief indicating full compliance has been achieved. If, by mid- to late January – depending on when the compliance report was issued – a district has yet to respond to the compliance request, a reminder notice is sent by the bureau chief to the superintendent of the district under review. (No notices are sent if a district with compliance problems submits any response to the department.) The form memo, typically sent in January or February, requests the district indicate the corrective actions it has taken to bring all educators within the district into compliance with the certification requirements. Districts are provided several weeks to complete the request. If districts still do not reply, a second reminder notice is sent with a request for the district to respond by March.

Any district still not submitting its corrective actions after the bureau chief's second written reminder receives a letter from the commissioner, generally by early May. The form letter is sent to the district's superintendent with a copy to the chairperson of the local board of education. The letter indicates the district has not submitted the required information to SDE. Districts are provided yet another opportunity to submit the information, which is typically due by late May, near the end of the school year.

The commissioner's letter further indicates that any teacher not in compliance with state's certification requirements may lose retirement credit earned through the Teachers' Retirement Board for the time the teacher was not properly certified. The letter also provides a reminder that the State Board of Education may order the district to forfeit a grant payment of \$1,000 to \$10,000, as determined by the commissioner, during the following fiscal year following the noncompliance determination.¹⁹

Level of Compliance

SDE's compliance records for the past three years were reviewed to determine school districts' overall level of compliance with state certification requirements. The information was analyzed from several different perspectives, with an emphasis on the districts *not* complying with certification requirements (in accordance with the way SDE compliance reports are designed).

¹⁹ C.G.S. Sec. 10-145(b).

As noted earlier, the information used in the analyses below is based on *all* educators. The data include not only public school districts, but also charter schools, Regional Educational Service Center (RES-C) districts, endowed schools, state-run schools, and special education facilities – collectively referred to in this section as “districts.” These entities were included because educators at each of these types of schools must be properly certified.

Overall compliance. As a way of providing context to the degree to which educators are not in full compliance with state certification requirements, the number of certified educators statewide and the number of educators determined not in compliance with certification requirements were examined. A comparison of these factors was made to first determine the level of noncompliance across the state.

As illustrated in Table III-1, *the total number of educators found out of compliance at the end of the 2006, 2007, and 2008 school years is minimal in relation to the total number of educators who held certification in the state during those years.* Across the three-year span analyzed, approximately two-tenths of one percent of educators in Connecticut was found to be in non-compliance with the state’s certification requirements. The number of educators not in full compliance with certification requirements ranged from a low 52 in 2006 to a high of 136 in 2007.

Table III-1. Total Number and Percent of Educators Not in Full Compliance with Connecticut Certification Requirements: School Years 2006, 2007, and 2008			
<i>School Year</i>	<i>Total Employed Certified Educators*</i>	<i>Total Compliance Issues at End of School Year</i>	<i>Percent of Educators Out of Compliance</i>
2005-06	53,319	52	0.1%
2006-07	53,832	136	0.3%
2007-08	54,120	96	0.2%
Three-Year Totals	161,271	284	0.2%
*Includes teachers, support services personnel, and administrators Source of data: SDE			

Given the low percentage of educators not in compliance with state educator certification requirements – or, conversely, the high degree of compliance – it begs the question as to why the state should devote resources to the function of ensuring districts fully comply with state certification requirements. The answer is threefold. First, it is a federal requirement under No Child Left Behind (NCLB) that every child in a public school be taught by a highly qualified teacher. In Connecticut, all teachers must meet state certification requirements for their particular assignment as a condition of being deemed highly qualified. Further, the state risks losing federal funding under NCLB if teachers do not meet the highly qualified standard. To date, this has not happened in Connecticut; SDE is expecting another federal monitoring visit under NCLB within the next year.

Second, Connecticut law requires districts employ properly certified educators. As such, the state would not know whether districts comply with the law without an adequate compliance monitoring process.

Third, *the potential number of students taught daily by teachers who are not appropriately certified in Connecticut and thus deemed not qualified under the state's certification standards, could be several thousand.* Given specific certification standards exist in Connecticut, the state has determined that teachers who fall short of meeting those standards are not as qualified to teach students as those who meet the standards. As such, students taught by non-qualified teachers may be at risk for an inferior education, strictly based on whether a teacher meets Connecticut's certification requirements.

By way of illustration, 96 of the 136 educators not properly certified during the 2006-07 school year were teachers. If 25 of those teachers taught at the secondary level, teaching an average of five classes per day, with 20 students per class, a total of 2,500 students (100 students per teacher, per day, multiplied by 25 teachers) would have received instruction daily from a teacher who was not properly certified in accordance with Connecticut's standards. In addition, if the remaining teachers were elementary or middle school teachers with an average class of 20 students, another 1,420 students would potentially have been taught by teachers without proper certification. This example shows the potential number of students impacted on a daily basis. The time for which students potentially are affected over the course of a year substantially increases the longer a district employs educators who are not in full compliance with certification requirements.

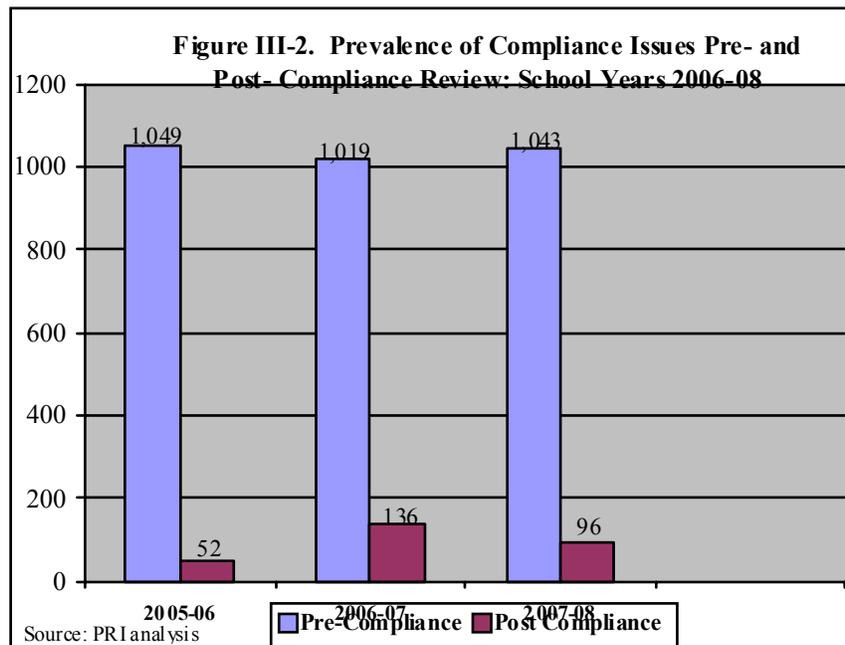
Types of noncompliance. SDE has two categories it uses to identify noncompliance among educators: 1) those with no state certificate, permit, or authorization; and 2) those with a state certificate but lacking the proper endorsement for the assignment provided by school districts on the staffing information submitted to SDE. Table III-2 provides this information for the last three school years for all districts.

As the table shows, noncompliance problems were almost evenly split over the three-year period between educators who did not hold a state-issued certificate and those who held a certificate but without the proper endorsement. Also, the proportion of the problems due to educators with no state certificate steadily increased over the three years, while the proportion due to educators without the proper endorsement steadily declined.

Table III-2. Types of Noncompliance Problems at the End of School Years 2006, 2007, and 2008		
<i>School Year</i>	<i>Educators with No State Certificate</i>	<i>Educators Without Proper Endorsement for Their Assignment</i>
2005-06	19 (37%)	33 (63%)
2006-07	63 (46%)	73 (54%)
2007-08	64 (67%)	32 (33%)
Three-Year Totals	146 (51%)	138 (49%)
Source of data: SDE		

Compliance problems by district. Compliance information extracted from the department’s staff file database was analyzed to determine the prevalence of: 1) problems present at the beginning of the compliance process and problems unresolved at the end of the process, both overall and by individual district; 2) educators out of compliance as a percent of all educators within a district; and 3) districts not responding to the initial compliance report by year’s end after reminder notices from the certification bureau chief and SDE commissioner.

A comparison of the percent of compliance issues at the start of the compliance process with those remaining at the end of the process is provided in Figure III-2. The figure reveals that a low number (and percentage) of compliance issues remained unresolved at the conclusion of the compliance process. Over the three years analyzed, the percent of unresolved compliance issues ranged from a low of 5 percent for 2006 to a high of 13 percent in 2007.



The department’s compliance data were further examined to determine which districts had the highest percentage of compliance problems. School districts were grouped into four categories based on the total number of educators within the district. The information was also analyzed to determine the number and percentage of compliance issues that remained unresolved at the conclusion of each school year.

Table III-3 shows the five districts that had the most compliance problems. The vast majority of compliance issues identified by SDE at the beginning of the year were resolved by districts prior to the end of the school year. The table also shows that districts other than traditional local and regional districts (e.g., charter schools) with relatively few educators had the highest percentage of compliance errors to total number of educators identified at the beginning of the compliance process and, generally, at the end of the compliance process.

Table III-3. Compliance Problems Information: School Years 2006-08

<i>District</i>	<i>Total Certified Educators</i>	<i>Total Compliance Problems</i>	<i>% Compliance Problems of Total Certified Educators</i>	<i>Compliance Problems Unresolved by Year's End</i>
2006				
1-50 Educators				
Elm City College	16	8	50%	1 (13%)
Arch Bridge School	13	6	46%	0 (0%)
Stamford Academy	17	7	41%	6 (86%)
Amistad Academy	21	6	29%	1 (17%)
Mount Saint John School	14	4	29%	0 (0%)
51-150 Educators				
American School for the Deaf	61	13	21%	0 (0%)
Eagle Hill School	68	7	10%	0 (0%)
Thompson School District	127	9	7%	0 (0%)
East Windsor School District	123	7	5%	3 (43%)
Woodstock Academy	89	5	6%	
151-300 Educators				
Bloomfield School District	259	17	7%	5 (29%)
Region 14 School District	189	12	6%	0 (0%)
Coventry School District	182	7	4%	1 (14%)
Plainville School District	246	7	3%	0 (0%)
Region 10 School District	249	7	3%	0 (0%)
301-500 Educators				
CREC	356	13	4%	0 (0%)
New Canaan School District	406	14	3%	0 (0%)
Vernon School District	364	12	3%	0 (0%)
Windham School District	370	12	3%	0 (0%)
Newtown School District	451	11	2%	1 (9%)
501 or More Educators				
Greenwich School District	950	41	4%	2 (5%)
Hartford School District	2,240	89	4%	1 (1%)
Bridgeport School District	1,736	64	4%	9 (14%)
New Haven School District	1,859	51	3%	1 (2%)
CT Tech High School System	1,323	35	3%	7 (20%)
2007				
1-50 Educators				
Yale Child Study Center	3	2	67%	1 (33%)
Stamford Academy	13	7	54%	7 (100%)
Park City Prep	10	5	50%	2 (40%)
Amistad Academy	33	11	33%	9 (82%)
Explorations	7	2	26%	1 (50%)
51-150 Educators				
Eagle Hill School	67	14	21%	0 (0%)
Preston School District	53	3	6%	0 (0%)
Thompson School District	126	7	6%	2 (29%)
Lisbon School District	56	3	5%	0 (0%)
Woodbridge School District	79	4	5%	0 (0%)

151-300 Educators				
New London School District	283	21	7%	3 (14%)
Unified School District #1	211	13	6%	0 (0%)
Old Saybrook School District	161	9	6%	0 (0%)
Bloomfield School District	260	13	5%	7 (54%)
Region 16 School District	224	8	4%	2 (25%)
301-500 Educators				
CREC	364	14	4%	0 (0%)
Windham School District	367	9	3%	1 (11%)
New Canaan School District	409	10	2%	3 (30%)
Farmington School District	394	9	2%	1 (11%)
Branford School District	360	8	2%	0 (0%)
501 or More Educators				
Hartford School District	2,268	110	5%	2 (2%)
Greenwich School District	945	31	3%	0 (0%)
Bridgeport School District	1,700	53	3%	19 (36%)
CT Tech High School System	1,386	36	3%	0 (0%)
West Hartford School District	950	24	3%	10 (42%)
2008				
1-50 Educators				
Achievement First Bridgeport	8	7	88%	5 (71%)
Stamford Academy	12	6	50%	3 (50%)
Boys and Girls Village	9	4	44%	1 (25%)
MCCA A.R.T. School	5	2	40%	0 (0%)
Amistad Academy	46	18	39%	12 (67%)
51-150 Educators				
Eagle Hill School	61	24	39%	1 (4%)
Thompson School District	126	7	6%	1 (14%)
North Stonington School Dist	90	5	6%	1 (20%)
Essex School District	55	2	4%	0 (0%)
Oxford School District	140	5	4%	2 (40%)
151-300 Educators				
Unified School District #1	222	88	40%	0 (0%)
New London School District	291	20	7%	3 (15%)
Norwich Free Academy	201	12	6%	5 (42%)
Bloomfield School District	257	14	5%	6 (43%)
Region 14 School District	199	6	3%	2 (33%)
301-500 Educators				
New Canaan School District	409	15	4%	1 (7%)
CREC	378	10	3%	0 (0%)
North Haven School District	334	8	2%	0 (0%)
Windham School District	381	9	2%	0 (0%)
Vernon School District	362	8	2%	0 (0%)
501 or More Educators				
Bridgeport School District	1,755	70	4%	14 (20%)
CT Tech High School System	1,341	45	3%	0 (0%)
Greenwich School District	943	25	3%	4 (16%)
New Britain School District	866	19	2%	0 (0%)
Stamford School District	1,501	28	2%	2 (7%)
Note: Figures current as of SDE compliance report dates. Source: PRI analysis of SDE data				

Districts with the most unresolved compliance issues. As noted above, there may be ramifications for student learning if students are taught by teachers (or schools are operated by administrators) who do not possess the necessary certification credentials in accordance with Connecticut's certification standards. SDE's records were analyzed to determine the districts with the most unresolved compliance issues for educators at the end of the school years. The information presented in Table III-4 is for all educators, including teachers, for various types of districts with certified educators and is based on one factor: the total number of outstanding compliance issues at the end of the school year.

Table III-4. School Districts/Programs with the Most Unresolved Educator Certification Compliance Problems at End of School Years 2006-2008	
<i>Districts/Programs</i>	<i>Total Unresolved Compliance Problems At End Of School Year</i>
2006	
Bridgeport	9
CT Technical High School System	7
Stamford Academy	6
Bloomfield, West Hartford	5
East Windsor	3
Greenwich	2
Districts with 1 unresolved compliance problem	15
2007	
Bridgeport	19
West Hartford	10
Amistad Academy	9
Stamford	8
Bloomfield, RSD 6, Stamford Academy	7
Elm City College, Fairfield	6
ACES, New Beginnings, New Haven	4
New Canaan, New London, Trumbull	3
East Hartford, Hartford, Park City Prep Charter, RSD 16, Thompson, Trailblazers Academy	2
Districts with 1 unresolved compliance problem	24
2008	
Bridgeport	14
Amistad Academy	12
Elm City College	8
Bloomfield	6
Achievement First, Norwich Free Academy	5
Greenwich	4
New London, RSD 6, Stamford Academy	3
Killingly, Oxford, Park City Prep, RSD 14, Stamford, Waterbury, West Hartford, Weston	2
Districts with 1 unresolved compliance problem	17
Source: PRI staff analysis of SDE data	

As Table III-4 shows, several school districts consistently rank among the districts with the most unresolved compliance issues in at least two of the three school years analyzed. For example, Bridgeport had the most unresolved issues each year, while Bloomfield, West Hartford, Amistad Academy, and Stamford Academy ranked near the top for at least two of the three years examined. It should be noted that SDE is aware of the districts with perennial compliance issues. The department recently worked with the state's three largest urban districts to help institute operational changes within those districts designed to bring the districts into full compliance with certification requirements by strengthening their data reporting capabilities. The department reports the three districts have made progress in solving their compliance-related problems, although additional work is needed to ensure educators within those districts fully comply with state certification requirements on an annual basis.

District Reference Group. District Reference Group (DRG) is a classification system developed and used by the State Department of Education that measures certain characteristics of families with children attending public schools. Districts having students with similar socio-economic status and need are grouped together to form a DRG. There are nine DRGs categorized "A" through "I"; District Reference Group A includes the towns at the highest end of the socio-economic continuum. (See Appendix C for a listing of school districts by DRG.)

The department of education's compliance information was analyzed to determine whether school districts in noncompliance with certification requirements tended to belong to particular DRGs. The analysis was conducted for school years ending 2006-08 and the results are shown in Table III-5. It should be noted that DRG designation is only available for local and regional public school districts and not for schools operated by other entities, such as RESCs, the state, or charter schools.

As the table shows, there is a relatively balanced distribution among DRGs of the overall number of districts having outstanding compliance problems each of three years analyzed. Although differences exist among DRGs when strictly analyzing the number of districts with year-end outstanding compliance problems, no specific DRG stands out as having a widely disproportionate share of districts with unresolved compliance issues. The unresolved compliance problems also generally correlate to the average number of educators by DRG. Over the three years, the average number of educators by DRG are: A (2,827); B (8,704); C (3,555); D (7,674); E (2,428); F (2,745); G (6,203); H (5,892); and I (8,822). Three of the four DRGs with the most cumulative compliance problems over the three-year period also averaged the most educators.

The table also shows that DRG I, which includes the towns with the poorest socio-economic conditions, had more year-end unresolved compliance issues than all other DRGs. Speculation was made during interviews for this study that a key reason that such districts have more compliance issues is because of difficulty in hiring and/or retaining teachers. This difficulty may force lower socio-economic districts to use teachers who are not properly certified at a higher rate than other districts, a claim not examined during this study.

**Table III-5. School Districts with Unresolved Certification Compliance Problems by DRG
School Years Ending 2006-2008**

2006			2007			2008		
<i>DRG</i>	<i># Districts</i>	<i># Unresolved Problems</i>	<i>DRG</i>	<i># Districts</i>	<i># Unresolved Problems</i>	<i>DRG</i>	<i># Districts</i>	<i># Unresolved Problems</i>
A	0	0	A	3	5	A	2	3
B	4	9	B	4	20	B	2	6
C	3	4	C	0	0	C	6	4
D	0	0	D	3	3	D	1	1
E	2	2	E	3	10	E	3	5
F	1	3	F	5	6	F	2	2
G	1	5	G	1	7	G	4	10
H	0	0	H	2	10	H	1	2
I	3	11	I	6	29	I	3	19

Source: PRI analysis of SDE data

Findings and Recommendations

The ability of SDE to ensure teachers are properly certified in accordance with state requirements is an important component of the overall certification process, as well as in achieving the state and federal goal of having students taught by qualified teachers. Without adequate information and thorough knowledge of educator assignments within districts, the compliance system is not fully effective. An ineffective compliance process increases the potential for students to receive instruction from teachers not meeting state certification standards.

Compliance information. *Due to the design of the current compliance monitoring system, the state may not have a comprehensive view of how well school districts and educators across the state are complying with the state’s teacher certification requirements.* The department’s compliance process is entirely dependent upon the staffing, educator assignment, and endorsement information submitted by school districts at their discretion. As a result, the state cannot be fully assured that the information coming from districts is complete, accurate, or timely. This does not imply that districts are intentionally submitting incorrect information, but the department has found discrepancies in district information in the past.

The SDE current compliance monitoring process does not independently verify the information submitted by districts through any type of on-site monitoring visit. The current compliance system is only as good as the information received from districts, and, again, the state cannot be completely assured represents educators’ professional status at the district level.

As noted, *SDE recently worked on-site with three districts – as part of the department’s broader Connecticut Accountability Learning Initiative (described in Section IV) – to identify solutions to perennial compliance issues within those districts, although neither follow-up with those districts nor visits to additional districts are currently planned.* SDE’s work with those districts resulted in state certification staff directly examining the data collection efforts and certification processes of those districts. The education department staff went into those on-site visits with prior knowledge of each district’s compliance deficiencies. SDE noted during this

study that the department and districts were able to work through many of the deficiencies with the goal of making district compliance efforts more effective.

A comparable effort is not planned for any of the remaining districts within SDE's current initiative for assisting schools identified as in need of improvement or any other school district having persistent certification compliance problems. As a result, the department remains solely dependent upon the staffing and assignment information submitted by districts. The committee believes the department is missing an opportunity to directly work with school districts to increase their capacity to collect and submit proper information and to refine their internal operations with the objective of ensuring greater, if not full, compliance with the state's educator certification requirements. The department also needs to take a more proactive approach – beyond its current desk-audit process – to ensure even greater compliance efforts across school districts.

The program review committee recommends the State Department of Education should implement an on-site monitoring program as part of its overall system of ensuring school districts and educators fully comply with the state's certification requirements. Spot audits of a random sample of districts should be made annually, with an audit of each district in Connecticut occurring at least once every five years. More frequent audits of districts with substantial or perennial problems should be made. As part of any on-site compliance audit, the department should offer districts technical assistance and support to improve districts' overall efforts to comply with state educator certification requirements and the ability of internal systems within districts to produce accurate, timely, and complete compliance information. The department should determine the extent of the new on-site inspection program and seek additional resources commensurate with the new monitoring efforts.

The above recommendation will enhance the department's overall compliance monitoring system beyond the current desk audit process. Although additional resources are likely required to implement the on-site inspection initiative, the level of such resources depends on the system designed by the department to conduct the monitoring visits.

If the state is fully committed to making sure all educators within districts throughout the state comply with certification standards and all students are taught by qualified teachers, on-site monitoring inspections and technical assistance will provide an effective way to bring about better compliance among districts – particularly for those districts the department identifies as having chronic compliance problems. On-site monitoring is also consistent with the compliance efforts of other types of state licensing and certification programs. For example, the Department of Public Health is required by statute to conduct on-site inspections of licensed child care facilities. The inspections are part of the department's overall licensing function and aim at ensuring provider compliance with state licensure requirements. The overriding goal of the recommendation is to lessen the number of educators not in full compliance with state certification regulations – and thus the number of students potentially taught by nonqualified teachers.

Enforcement. A proactive educator certification compliance system greatly depends on the State Board of Education. Without the board's backing through action to enforce district and educator adherence to the state's certification standards, the department's compliance efforts will continue to fall short in this regard. Beyond receiving a letter from the SDE commissioner, there are no consequences for districts still out of compliance after several warnings and opportunities to resolve problems, possibly resulting in districts minimizing the state's compliance process.

The State Board of Education does not take a proactive approach in requiring districts to comply with the state's certification requirements for educators. The board has not addressed the issue of compliance nor used its legal authority to push school districts to comply with certification requirements. As long as the state's policy is to require educators meet specific certification standards, the board of education has a responsibility to oversee and enforce this policy to the fullest extent.

The program review committee recommends the State Board of Education make compliance with state certification standards among school districts more of a priority at the board level. The board should take a more proactive role approach to ensuring school districts and educators fully comply with the state's certification standards on a regular basis, including publically releasing the names of school districts in non-compliance and applying the board's authority in accordance with C.G.S. Sec. 10-145(b) when necessary.

The committee does not believe enforcement of certification standards should be an end unto itself. Rather, a passive stance on enforcing compliance based on whether districts employ educators who meet the state standards for certification only serves to continue the employment of unqualified educators. The example provided above as to the number of students potentially being taught by a teacher lacking appropriate certification serves to underscore the importance of increased enforcement of certification standards by the state education board.

A key part of the enforcement process prior to the board's involvement is the interaction between SDE and school districts. *SDE only initiates formal communication from the bureau chief and the commissioner if districts do not respond at all to the department's compliance reporting requirements. Moreover, communication from the commissioner occurs after three notifications from the department that compliance information is required, and essentially comes near the end of the school year.* By this time, students could potentially have received instruction for months from teachers not in compliance with state certification requirements.

For those districts that respond to the department's request for compliance information, as identified through the department's annual compliance report, current practice gives them until the end of the school year to submit the necessary information, regardless of attempts by the certification analyst responsible for compliance to obtain the information earlier. At the same time, there is no formal communication from either the bureau chief or commissioner to these districts, as long as they have responded in some way to the information request.

The committee understands the need (and the intention) for the department to work collaboratively with districts to obtain the necessary compliance information, yet believes the process is too extended in that it could take a full school year before resolution, if any, occurs. Moreover, there is no formal communication from either the bureau chief or the commissioner to

districts with compliance issues, as long as the districts have responded to the department's request for information in some manner. The department's administration only formally notifies districts if they have not made any attempt to submit the required compliance information.

The program review committee recommends the only formal notification from the state education department to school district superintendents and local/regional boards of education chairpersons should come directly from the commissioner within five business days of when a district does not submit the required compliance information upon first request. If the necessary information regarding the corrective actions taken by a district is not received within 10 business days of receipt of the commissioner's letter, the matter should be forwarded to the State Board of Education for action. The state education board, or a designated committee thereof, should begin the process of enforcing compliance in accordance with the board's statutory authority.

This recommendation is intended to drastically reduce the amount of time educators, particularly teachers, work without proper state certification. Moreover, the compliance process as a whole needs the backing of the state board through use of its current authority to enforce compliance among school districts as a way of getting districts to respond to department and resolve their compliance issues more quickly. The recommendation should result in fewer students taught by teachers who are not properly certified.

Public Act 08-112. Connecticut passed legislation in 2008 affecting how the Teachers' Retirement Board (TRB) accounts for retirement credit for teachers who previously taught in assignments without proper certification.²⁰ The legislation also has an impact on SDE's current certification compliance process.

The new law retains the previous requirement that any teacher possessing a state certificate (or permit) who is notified by SDE as not properly certified for his or her position, will not receive additional retirement credit under TRB until the teacher obtains the proper certification. Under the new law, TRB now is not permitted to rescind any service credited to a teacher for the time spent teaching without the proper certification prior to the teacher's notification from SDE. This law applies to any teacher notified by the department on or after December 1, 2003, as not properly certified for his or her teaching assignment. The new law further requires TRB to restore any applicable retirement credit to any teacher if the credit was rescinded prior to May 27, 2008 (the date the law was signed by the governor).

The new law makes it more imperative that SDE complete its compliance process in a timely manner because TRB cannot retroactively revoke a teacher's retirement credit, and may only revoke future credit after SDE provides notification that a teacher is not properly certified. Although this new process benefits teachers in that they cannot lose retirement credit earned prior to notification by SDE regarding improper certification, the impetus for the new law may indicate: 1) assignment information was not properly reported to SDE by districts; 2) administrative deficiencies exist within the state's compliance oversight process allowing teachers not properly certified to go unnoticed; and 3) teachers either are unaware they are not properly certified for their assignments or they overlook the requirements. Regardless, the new

²⁰ P.A. 08-112, Sec. 3. Effective May 27, 2008.

law puts more onus on the department and TRB to ensure teachers are properly certified for their assignments and retirement credit is properly awarded.

It is unclear at this time what communication and coordination has taken place between the education department and the Teachers' Retirement Board regarding the effects of the new legislation. Interviews conducted during this study revealed the department regularly forwards to TRB the information it has on file for teachers not certified at all; information about teachers not properly certified according to their endorsements is not sent to TRB. Although some information is exchanged between the two agencies, additional communication needs to occur to determine the best way to approach the statutory change resulting from P.A. 08-112 and exactly what information needs to be coordinated between SDE and TRB to effectively meet the new retirement credit provision. This is particularly important because TRB relies on the teacher assignment and certification information supplied by SDE for properly applying teachers' retirement credit.

The program review committee recommends the State Department of Education and the Teachers' Retirement Board determine by February 1, 2009, the most effective process between the two agencies for ensuring teachers are provided proper retirement credit based on their state certification status. SDE should begin sending information to TRB on teachers not properly certified as soon as it becomes available through the annual compliance report generated by the education department.

Automated certification system. The recommendations made above strive to strengthen the overall effectiveness of the state's certification monitoring system for educators. The recommendations must be implemented, however, in coordination with the department's forthcoming automated certification system. The new system is anticipated to affect the department's certification compliance process in several ways. Foremost is the elimination of the paper process used by the department and districts to make any necessary corrections to compliance issues. Districts are anticipated to have the ability to indicate directly within the certification system the actions they have taken to correct compliance issues identified by the department. The ability to complete the compliance process via an automated system should enhance the overall effectiveness of the process, including increasing the frequency with which the department may review districts' compliance efforts.

The program review committee recommends the department of education ensure its new automated certification system will have the full capacity to allow the department to monitor school districts' compliance with state certification requirements for educators throughout the year instead of the current process which is based on a one-time compliance report generated annually.

Although an automated system is being implemented that most likely will make the compliance process more *efficient*, such a system does not lessen or negate the state's overall responsibility to implement an *effective* certification monitoring process to ensure full compliance across school districts on a frequent basis.

Section IV: Certification Requirements

To obtain certification, teachers must meet education and assessment requirements common to all subject areas. Connecticut education stakeholders, including the education department, teachers' unions, and boards of education, agree that the purpose of certification is to establish minimum standards of competence and believe it is appropriate for the State to certify teachers. The program review committee was interested in a description of the current certification requirements for teachers, how the requirements have changed over time, and the State Department of Education's (SDE) present efforts to revise the requirements.

State certification requirements, which are enumerated in statute and regulation, have not been changed in more than two decades. Recently SDE's certification unit has been disseminating and hearing feedback on a set of proposals that would revise: 1) the knowledge and skills with which beginning teachers are expected to enter the profession, and 2) the continuing education requirements veteran teachers must complete to retain certification. As a result, this study involved examining both the current and proposed certification requirements, specifically the:

- state's past and current efforts to change the certification requirements;
- rationale for key changes being discussed;
- current and proposed education requirements in the context of this study;
- assessment development process and requirements; and
- relationship of certification to Connecticut's student achievement gap.

EFFORTS TO CHANGE

The certification structure and teaching endorsements have largely remained the same since the Education Enhancement Act was passed in 1986. Only minor changes have been made, mainly in response to federal guidance and school districts' concerns regarding shortages. For example, the subject knowledge assessment (Praxis II) must now be passed to receive a durational shortage area permit to comply with the highly qualified teacher provision of the No Child Left Behind Act.

One decade ago, an attempt at major certification change was made and later repealed. The key proposal was to move to a system that involved offering two types of certification options at the elementary and secondary levels: content area, and combined content area and special education (i.e., dual certification). Under the proposed system, a prospective teacher who wanted to teach elementary education would have chosen to enroll in either a regular elementary education preparation program, or a combined special education and elementary education program. The change was intended to make special education teachers sufficiently prepared to teach both special education within the subject and a subject in a non-special education classroom, thus the term "dual certification." In addition, for all endorsements, preparation requirements were written out for the first time as a set of skills – called "competencies" – that new teachers were to possess upon graduation from their teacher preparation program. Each preparation program's ability to demonstrate whether and how teachers were meeting these

competencies was to be judged through the state accreditation process for teacher preparation programs.

The dual certification and competency regulations were adopted in 1998 but not due to become effective until July 1, 2003. The delay was necessary to give teacher preparation programs time to adjust curricula and begin graduating students under the new requirements. Other changes, involving minor adjustments to the requirements for certain permits and teaching endorsements,²¹ were adopted at the same time but became effective immediately.²²

Just before the dual certification and competency regulations' effective date, implementation was delayed by the General Assembly at the State Board of Education's (SBE) request through P.A. 03-168. The request stemmed from concerns expressed by teacher preparation programs, district administrators, department staff, and other key constituencies regarding the timeframe and impacts of the proposal. The regulations ultimately were repealed through the regulations review process later in 2003.

The State Department of Education has been shaping and attempting to build support for different major changes to the certification structure and endorsement requirements over the last four years. The current set of proposals is larger than the one adopted in 1998 and involves several major components. One main aspect is a move to "integrated certification." Under the current integrated certification proposal, all elementary and secondary teachers will be prepared to educate all children, including those eligible for special education services, English language learners (ELLs), and students from all socioeconomic backgrounds. The teachers will be allowed to teach in non-special education classrooms and serve as resource room instructors, but will not be lead special education teachers.

Like the earlier, repealed certification package, integrated certification would require teacher preparation programs to demonstrate all their teacher candidates have met competencies that show sufficient preparation to educate all students. The draft competencies currently under consideration are different from those that were supposed to become effective in 2003. The department believes teacher preparation programs are better equipped to assess candidates' competencies compared to several years ago because the programs now have gone through state accreditation based on standards that require assessment.

If the integrated certification proposal is adopted, SDE will examine existing subject matter tests to see whether any include the knowledge that will be incorporated into an integrated certificate. Should the search be unsuccessful, the department is committed to developing a suitable assessment or finding a way to incorporate the new material into existing tests.

²¹ The other changes involved credit hour and renewal requirements for a range of permits and teaching authorizations (excluding certificates), and for cross-endorsements and middle grades endorsements. For more information, see "Certification Regulations – Highlights of Changes AUGUST 1998" on SDE's website, at: <http://www.sde.ct.gov/sde/cwp/view.asp?a=2613&q=321246>.

²² These other changes were set to expire in 2003, when the dual certification set of regulations that incorporated the other changes would have taken effect. Because the dual certification regulations were repealed, the original other changes remain in effect.

Other significant changes being considered are making the special education certificate require previous experience and certification in a content area, and increasing continuing education requirements. The rationales for these changes are discussed later.

At the same time SDE is undertaking this effort, a task force mandated by statute is meeting to consider what, if anything, should be given to and required of new teachers in terms of support and assessment after the current beginning teacher program ends on July 1, 2009 (P.A. 08-107). The task force is taking a comprehensive view and may make recommendations that impact the certification structure for veteran teachers as well. The group's report is due to the General Assembly in January 2009.

CURRENT CERTIFICATION PROPOSALS

According to SDE, the integrated certification and special educator proposals, the department's main two changes to teacher certification regulations, are being driven by federal laws, the education community's research, and changes in Connecticut's classrooms. These three forces converge in the expectation that educators need to be more broadly prepared to effectively teach all students. The department is proposing to ensure teachers acquire the skills to do so through revisions to certification requirements.

Integrated Certification

The integrated certification proposal "integrates" instruction on how to teach diverse learners into teacher preparation program curricula. Integrated certification will apply to teachers of core and special subjects (e.g., art) at the early childhood (pre-kindergarten through grade 3), elementary (grades K-6), and secondary (grades 6-12) levels. At the federal level, the No Child Left Behind (NCLB) Act of 2001 and the reauthorization three years later of the Individuals with Disabilities Education Act (IDEA) encouraged states to move more aggressively toward ensuring teachers have the skills necessary to educate all children.

NCLB explicitly requires states, districts, and schools to focus on improving the achievement test performance of students of every ability and background. The law's imperative coincides with increasing ethnic, linguistic, and economic diversity in Connecticut's schools.

IDEA has long required schools to place students with disabilities in the "least restrictive environment." The least restrictive environment means a special education student should be placed in a general education classroom as opposed to a special education classroom, or receive pull-out instruction as opposed to a special education school, whenever possible. SDE believes that to effectively teach students under this policy of inclusion, general educators need to be equipped to teach a broad variety of learners. Inclusion of students with disabilities in general education classrooms is further promoted by the Connecticut State Board of Education's 2002 settlement of the *P.J. et al* lawsuit.²³ According to SDE, about 12 percent of all Connecticut students receive special education services.

²³ A group of five children with mental disabilities and their families sued the State Board of Education in 1991 in a class-action lawsuit. The settlement requires the State Department of Education to annually show progress toward reaching five goals regarding more inclusion, less over-identification of children in certain groups (race, ethnicity,

SDE recognizes that inclusion currently poses a logistical challenge in that it requires general education teachers without strong preparation in adjusting instruction to teach special education students, with some support. It believes inclusion is imperative nonetheless because of a research consensus that the alternative option of placing special education students in separate classes or pull-out sessions, which has been used for many years, often does not sufficiently improve children's performance.²⁴ Those children who are placed into special education and continue to lag behind in achievement are disproportionately black and Hispanic, thereby exacerbating the achievement gap.²⁵

In Connecticut, about three-quarters of children eligible for special education services spent at least 80 percent of their school day within a general education classroom in the 2007-08 school year. An additional 18 percent spent between 40 and 79 percent of their day within the general education classroom.²⁶ Clearly, *general education teachers already are being expected to instruct special education students*. Despite the move to inclusion, national experts and practitioners appear to agree that the current system of educating special education students does not appear to be working.²⁷

Scientific Research-Based Interventions (SRBI)

Federal and state trends encouraged the State Department of Education to undertake a systemic reform of how instruction is delivered, called Scientific Research-Based Interventions (SRBI), of which the integrated certification proposal is a key element. Specifically, under IDEA, states must at least permit but may require the use of a process based on a student's response to scientific research-based interventions, and may permit the use of other alternative research-based procedures for determining whether a child has a specific learning disability.

The SRBI approach ties together foundational teaching principles that have been promoted by the education department in numerous ways over several years. SRBI is Connecticut's version of Response to Intervention, a federally accepted technique to enhance instruction for students who are struggling.

gender, or district) as eligible for special education services, increase in attendance at non-special education schools, and a higher percent of disabled students participating in extracurricular activities. The settlement agreement is available on SDE's website at: http://www.sde.ct.gov/sde/lib/sde/PDF/deps/PJ/SA_PJ_Final02.pdf.

²⁴ This is noted by the report authored by the National Association of State Directors of Special Education that explains the rationale for proposing a new framework for educating students (*Response to Intervention; Policy Considerations and Implementation*, 2005).

²⁵ "Disability Counts and Percents by Race/Ethnicity, For Children/Youth (Ages 3-21), Receiving Special Education, Connecticut State Department of Education, 2007-2008 School Year Data," SDE. Accessed on October 28, 2008, at: http://www.sde.ct.gov/sde/lib/sde/PDF/DEPS/Special/SSP/Disproportionality_Data08.pdf.

²⁶ PRI staff calculations using: "K-12 Students in Regular Class, Resource Room, and Separate Classroom Settings by Disability Type," SDE, Handout distributed to Certification Advisory Committee on Regulations Revisions, September 25, 2008.

²⁷ *Response to Intervention; Policy Considerations and Implementation*, National Association of State Directors of Special Education, Inc., 2005.

The education department believes the research indicates that SRBI, if implemented properly, will improve student achievement – particularly for children in minority groups – and substantially lessen (but not eliminate) the need for traditional special education services by focusing on early intervention. The National Association of State Directors of Special Education also believes early detection and intervention will enable teachers to provide assistance when students begin to struggle, instead of evaluating students for special education services when they fall far behind.²⁸

SRBI is a three-tier approach to instruction aimed at delivering appropriate instruction, discovering learning trouble early, and subsequently providing additional assistance before the student is placed into special education. It involves administering frequent assessments (common to all classes in a grade level and subject at a school) to understand every student's progress and then using research-based instructional methods.

Under SRBI, all students are to receive high-quality instruction suitable to their needs (i.e., differentiated). A student who is making little or no progress at one level, moves to the next tier to receive as a supplement more intensive support, more frequent assessments, and different research-based instructional techniques. If a student has moved through the second and third levels, spending eight to 20 weeks in each, but continues to show no substantial improvement, a referral to a special education services assessment may be given.²⁹ (Parents continue to have the option of requesting a special education assessment whenever desired.)

A teacher prepared under the proposed integrated certificate requirements would have learned during the preparation program how to provide differentiated, research-based instruction to all students, which is a foundational component of SRBI. Therefore, *if the integrated certification proposal is effectively implemented, new teachers will be sufficiently equipped to implement SRBI instruction.*

The department issued guidelines in spring 2008 that will require districts to use SRBI as part of the assessment that determines whether a student should receive special education services by September 2009. It is unclear to what extent Connecticut schools have moved to adopt SRBI, aside from an SDE grant project in four districts aiming to expand use of the approach, and the department has not determined whether compliance with the new SRBI requirement will be monitored.

SRBI was developed by an advisory panel, appointed by the education department, which relied extensively on a Response to Intervention report written by the National Association of State Directors of Special Education.³⁰ Further, the upcoming IDEA reauthorization, due in 2009, might require states to mandate the use of such an approach, as Connecticut has moved to do.

²⁸ *Response to Intervention; Policy Considerations and Implementation*, National Association of State Directors of Special Education, Inc., 2005.

²⁹ *Connecticut's Framework for RTI - Using Scientific Research-Based Interventions: Improving Education for All Students*, SDE, August 2008. Accessed October 22, 2008, at: http://www.sde.ct.gov/sde/lib/sde/pdf/pressroom/SRBI_full.pdf.

³⁰ *Response to Intervention; Policy Considerations and Implementation*, National Association of State Directors of Special Education, Inc., 2005.

Highly Qualified Special Educators

The department's other main proposal that has implications for special education is to make the main special educator endorsement an advanced one. The advanced special educator would be required to have certification and previous experience in teaching a subject area, as well as a master's degree in special education.³¹

SDE has stated that the advanced special educator proposal has been put forth because NCLB requires special educators to have content area expertise when they are primary instructors. "Primary" instructor means the special education teacher is the main source of instruction and is not merely supplementing the teaching of the student by a general education teacher. For example, a special education teacher who is the sole deliverer of math instruction to one or more special education students is the primary math instructor for those students. In contrast, a special education teacher who provides supplemental supportive instruction to one or more special education students in a resource room setting, in addition to instruction provided to those students in a general education classroom by a general education teacher, is not the primary instructor. Special education instructors who are not primary instructors are required under NCLB to be highly qualified only in special education, a qualification that in Connecticut is met by passing the Praxis II examination in special education and meeting the special educator endorsement requirements.

It is not fully clear to what extent Connecticut's current special education teachers are now primary instructors (or would become them, under SRBI) and therefore are required by federal law to have expertise in the content area(s) of primary instruction. A survey conducted by SDE in fall 2005 indicated that about 30 percent of special education teachers at the elementary level and 20 percent at the high school level provided content instruction.³² The department has noted a future reauthorization of NCLB might require special educators who are secondary instructors to be highly qualified in the subjects they teach.

Schedule

The State Department of Education has set a schedule for advancing the certification changes, described in Table IV-1 below. The changes will move forward in two components. Statutory changes, which involve mostly continuing education requirements and certificate denials and revocations, will be part of SDE's legislative package for the 2009 session of the General Assembly, if approved by the State Board of Education and the Office of Policy and Management. Proposed regulatory changes, which involve the certification endorsement requirements, will be formally presented to SBE in fall 2009. (The board has been informally briefed on the proposals for a few years; this fall, SDE began a series of in-depth presentations and discussions with the board.) The regulatory changes, which are still being determined, would not become fully effective until summer 2014 because of the length of time necessary for two key components to happen. First, the state's administrative process required to adopt regulations must be followed and takes some time. Second, full implementation would require

³¹ There have been varying proposals regarding what certification should be granted to special educators coming to Connecticut from other states. As these proposals seem to be in flux, they are not discussed in this report.

³² "Survey of Assignments of Special Educators Teaching Core Academic Subjects; Survey Conducted Fall 2005," SDE.

teacher preparation programs to modify curricula, be re-accredited by the state, and then graduate entering teacher candidates with the new preparation. The education department has expressed its commitment to keeping the self-imposed current schedule because it believes the changes are necessary to improve student achievement, and therefore wants the new requirements to take effect as quickly as possible.

Table IV-1. SDE’s Current Proposed Timeline for Adopting New Certification Laws and Regulations	
Nov./Dec. 2008	Presentation of proposed statutory amendments to State Board of Education (SBE). Amendments could include changes to continuing education and certain aspects of certificate denials and revocations.
Sept. 2009	Presentation of intent to adopt regulations to SBE. New regulations will include changes to endorsements, including integrated certification and special educator endorsements.
Fall 2009	Public comment period on proposed regulations
Feb. 2010	Adoption of new regulations by SBE
Spring 2010	Approval of revised preparation programs, now aligned with new regulations
Jan. 2011	Projected filing of regulations with Secretary of the State, after approval by the Legislative Regulation Review Committee and the attorney general
July 1, 2014	Full implementation of new endorsement regulations, with issuance of certificates to educators who were prepared in the revised preparation programs
Source of data: “CSDE Certification Advisory Committee on Regulations Revision; September 25, 2008; Overview Presentation”	

Development Process

The State Department of Education appears to have made a more proactive effort to receive input from education constituencies, compared to the last time major certification revisions were considered. Information from interviews conducted for this study indicates that during the 1990s, SDE did not fully seek the opinions of outside groups. The department seemed to have relied mainly on its own curriculum and certification staff to shape the competency-based certification changes, which ultimately were repealed. In contrast, *in this round of developing certification changes, SDE has reached out to education constituencies and been receptive to conversations when approached by them.*

The education department's certification unit began examining potential changes through internal and external methods in fall 2005. These early meetings with education constituencies did not result in either well-formed, thorough drafts of changes or stable consensus on the ideas, but they provided SDE with input used to further refine the proposals.

Internally, SDE's curriculum unit recommended what qualification changes, if any, should be made in their respective content areas. The curriculum staff was given several months to receive input from all relevant content area associations, develop proposals, and justify the proposals to certification staff. The certification unit then considered the implications of the proposals, examining whether each would be overly burdensome on preparation programs and potential teachers, result in teacher supply problems for school districts, or pose a barrier to certifying educators from other states.

Externally, the department undertook three key efforts. First, it convened an initial round of stakeholders' meetings. Those meetings focused on integrated certification but included a range of topics. Second, soon after the stakeholders started to meet, the department began in January 2006 an overall examination of Connecticut's educator requirements and standards, called the Educator Continuum Steering Committee. The continuum committee involved a broad range of education and business groups and individuals. One sub-committee focused on teacher certification proposals. Third, simultaneously several separate groups met (usually only a few times) to discuss particular endorsement areas (e.g., special education, math, bilingual education). The three efforts ended mid-2006. The department's certification proposals that had been discussed were included in a list of ten "draft" recommendations originating from the continuum committee that SDE presented to the State Board of Education as priorities.

The department then experienced several high-level personnel changes, which slowed the development process, with one exception. In the first half of 2007, the department brought together teacher preparation program leaders and district and school administrators to develop a draft of the competencies prospective teachers would be expected to have upon completing preparation. Of note, the teachers' unions were invited to participate and did so but were dissatisfied with both their level of input and the last version of the draft competencies reviewed by the group. The draft competencies, which still have not been finalized, were drawn, in part, from national and state professional association teacher standards.

In early 2008, the department began a series of additional efforts that included obtaining the opinions of teachers, administrators, and other educators who would be affected by any certification changes. Some of these efforts were constructed in response to being approached by groups that were dissatisfied with their current level of input with respect to the proposal development process, including a series of meetings with teacher preparation programs and the 2007 group that drafted the teacher preparation competencies. Other efforts at collecting feedback were initiated by the department, including focus groups with educators and parents of special education students, a second round of stakeholders' meetings (happening this fall), and colloquia with teacher preparation programs. These key proposal development activities are described in more detail in Table IV-2.

Table IV-2. Timeline of SDE Efforts to Date to Develop New Certification Requirements

<i>Date Began</i>	<i>Date Ended</i>	<i>Effort</i>	<i>Description of Effort</i>
Fall 2005	March 2006	Internal generation of certification endorsement requirements	SDE curriculum consultants asked content area associations for input and gave recommendations on how certification endorsement requirements should be changed, if at all
Nov. 2005	June 2006	First set of stakeholders' meetings	Meetings held with constituency groups regarding integrated certification
Jan. 2006	June 2006	Educator Continuum Committee	Examined potential certification proposals as part of larger examination of educators' requirements
Mar. 2006	Summer 2006	Refinement of internally generated endorsement proposals	Certification and curriculum units met to clarify proposals, and certification unit examined each proposal's feasibility
Fall 2006	Summer 2007	Consortium on Teacher Competencies	Constituency groups approached SDE to ask for more involvement; end product of meetings was draft pre-service competencies (i.e., skills teachers would be required to demonstrate upon completion from teacher preparation programs)
Spring 2007	---	Presentation on key aspects of proposals to State Board of Education	First time State Board of Education received proposed changes
Feb. and Mar. 2008	---	Focus groups of educators and parents	Regional education lab led focus groups of teachers, principals, superintendents, parents, and education advocates regarding the proposals, at SDE's request
Spring 2008	Summer 2008	Meetings with teacher preparation program directors	Preparation program directors approached SDE, and met with the Education Commissioner and certification staff; reached near-consensus at director level on basic preparation model (integrated certification and competency-based)
Summer 2008	---	Meetings with curriculum consultants	Met with curriculum consultants whose areas were under major overhauls (e.g., elementary education, literacy) to get feedback on current versions of proposals

<i>Date Began</i>	<i>Date Ended</i>	<i>Effort</i>	<i>Description of Effort</i>
Sept. 2008	Dec. 2008	Second set of stakeholders' meetings	Meeting with constituency groups regarding all certification changes
Sept. 2008	Dec. 2008	Teacher preparation program colloquia	Meeting with preparation program leaders and faculty to discuss primarily integrated certification and special education endorsements
Winter 2008	Unclear	Committee reviews of teacher standards and teacher evaluation requirements	Committees not yet formed; will integrate the proposed teacher competencies into Connecticut's teaching standards and otherwise revise as necessary, and produce new teacher evaluation standards
Source: Based on PRI staff interviews and reviews of meeting documents			

Although some of SDE's efforts to gather information were the result of requests from outside groups, when approached, the department has been willing to meet with and hear the concerns of others, as indicated by Table IV-2. Some groups, most notably the teachers' unions, disagree with certain key aspects of the proposals. The groups have been able to voice their concerns through several of the initiatives outlined in the table. In some cases, the department has adjusted its proposals in response to concerns raised. Examples of adjustments to date are:

- pushing back its full implementation date from 2012 to 2014, due to the teacher preparation programs' concern about the time it will take to adequately revise curricula;
- moving to competency-based requirements that can be satisfied by embedding key preparation in coursework, from the department's original 2005 proposal to require 15 credits in differentiating instruction for diverse learners, a change made in response to concerns expressed by teacher preparation programs; and
- creating a non-advanced special educator endorsement (the details are still in development, as noted previously), to ease concerns among stakeholders with the advanced special educator endorsement and to make Connecticut special education certification possible for teachers trained or experienced in other states.

At the same time, the committee believes the education department needs to work to limit opposition to or revise proposals with which many education constituencies disagree. This is especially true of proposals for which the legal, research, and common-sense foundation is relatively weak. For example, in one stakeholder meeting observed by committee staff, the group reached near-consensus against the department's proposal to increase the continuing education requirements. The department, however, did not at the meeting either commit to

reconsidering that proposal or indicate in any other way that the proposal would be revised. Input such as that should be recognized and used by the department.

For a proposal that the department believes needs to be implemented largely as is currently conceived, yet is yielding concern or disagreement among stakeholders, SDE should consider whether more effort should be made to inform the education community – including members of advocacy groups – of the proposal’s rationale, details, and implications. The committee recognizes SDE wants the changes implemented as quickly as possible, but without proactive and continued work to ease concerns, the department likely will encounter implementation difficulties or, at a minimum, animosity that may affect other efforts requiring cooperation within the larger education community. While complete consensus may be an unreachable goal, efforts should be made to develop as much support as possible.

The program review committee recommends the State Department of Education continue to involve all pertinent stakeholders as changes in regulations are put forth, allow more discourse for understanding to be reached when there is disagreement over a particular proposal, and adjust its certification proposals when necessary to advance the state’s educational goals, including improved student achievement.

CERTIFICATION REQUIREMENTS: EDUCATION

Each teacher must meet certain common education and assessment requirements to obtain and maintain a Connecticut certificate. (The certification requirements are different for particular teaching and non-teaching positions, such as administrators and school nurses teaching health.) This subsection describes Connecticut’s current teacher certification requirements, proposed changes, other Northeastern states’ comparable requirements, and research, and then puts forth recommendations as appropriate. Charts comparing the certification requirements of Northeastern states are found in Appendix D.

Researchers in the field of teacher preparation agree that the body of well-conducted research on the effectiveness of different teacher preparation aspects is somewhat small. Many studies have been based only on aggregate, incomplete data analysis (e.g., showing a higher percentage of teachers receiving certain preparation or credentials in a district is associated with better district-level overall student achievement but failing to rule out other potential explanations). Other studies have relied on teachers’ own opinions, not on student achievement data, as a measurement of effect. *Researchers agree the literature has formed a consensus that knowledge of both subject matter and how to teach subjects (i.e., subject-specific pedagogy) – especially practice in teaching – is important in improving student performance, but it is not known exactly which levels of subject and pedagogical knowledge or teaching practice are necessary to have that positive effect.*³³ Studies have not shown that, in most fields, credentials one might intuitively think are useful – such as a subject major or master’s degree – do in fact lead to better student achievement.

³³ “The Effect of Certification and Preparation on Teacher Quality,” Donald Boyd, Daniel Goldhaber, Hamilton Lankford, and James Wyckoff, *Future of Children* 17(1), Spring 2007. Accessed October 21, 2008, at: http://www.futureofchildren.org/usr_doc/7_03.pdf . And: *The Link Between Teacher Quality and Student Outcomes: A Research Synthesis*,” Laura Goe, National Comprehensive Center on Teacher Quality, October 2007. Accessed September 5, 2008, at: <http://www.tqsource.org/publications/LinkBetweenTQandStudentOutcomes.pdf>

One thorough study that may lead to useful information on how to prepare teachers to have a strong positive impact on student learning is currently being conducted, using data from New York City.³⁴ SDE is encouraged to keep abreast of emerging research on what aspects of teacher preparation improve student performance and promote these practices to teacher preparation programs.

Obtaining Certification

Statute and state regulation currently require teachers to meet specific common coursework requirements, in addition to coursework specific to the endorsement area. (For information on the credit and coursework requirements for each endorsement, see Appendix B of the committee's June 2008 briefing report on this study.) All teachers who complete and are recommended for Connecticut certification by a teacher preparation program must meet the following requirements:

- credits in particular areas of professional education – foundations of education, educational psychology, and curriculum and methods – totaling either 18 or 30 (including field experience credits), depending on the endorsement;³⁵
- a broad variety of academic coursework, with 39 credit hours in five of six academic areas (natural sciences, social studies, fine arts, English, mathematics, and foreign language);³⁶
- a course in special education consisting of 36 clock hours of instruction, and a three credit-hour course in U.S. history; and
- at least ten weeks of student teaching for six to twelve credit hours.

Connecticut teacher preparation programs' compliance with these requirements is checked by the certification unit as part of the state's teacher preparation program accreditation process.

Coursework reciprocity. Teachers who were successfully prepared in other states could have these and endorsement-specific coursework requirements waived by SDE, depending on the state.

SDE recognizes the completion of state-approved teacher preparation programs in states with which Connecticut has an agreement as sufficient in meeting teacher coursework requirements. Connecticut is party to the National Association of State Directors of Teacher Education and Certification (NASDTEC) Interstate Agreement, called "NIA." Connecticut has NIA reciprocity for teachers with 38 states – including all those in the Northeast – and Washington, D.C. (See the study's June briefing report for a list of the states.)

The department does not recognize as adequate the completion of either preparation programs in states not recognized with an agreement or alternate route programs in any state.

³⁴ For more information on the study, see:

<http://www.teacherpolicyresearch.org/TeacherPathwaysProject/tabid/81/Default.aspx> .

³⁵ Professional education must include coursework in technology skills, literacy, and second language learning.

³⁶ Regional accreditation by the New England Association of Schools and Colleges requires baccalaureate-granting institutions to mandate all bachelor's students complete 40 credits in general education, including arts and humanities, math, science, and social science.

For an out-of-state applicant not covered by a coursework reciprocity agreement, SDE issues certification only when the teacher has met the precise general and endorsement-specific requirements.³⁷ *The department also does not give coursework reciprocity to graduates of programs approved by the National Council for Accreditation of Teacher Education (NCATE), despite NCATE's accreditation standards being Connecticut's state approval standards.* (See below for additional discussion regarding NCATE reciprocity.)

Proposed changes. If SDE's proposed certification changes are adopted in essentially the current form on schedule, the areas of professional education coursework will change and be based on certain key competencies, which Connecticut preparation programs will be required to show their recommended candidates have met. The draft (i.e., not yet finalized) areas of the competencies are: development and characteristics of learners, evidence-/standards-based instruction, evidence-based classroom and behavior management, assessment, and professional behaviors and responsibilities. The draft competency document states that the goal is to "ensure high achievement of all students."

The impact of the change to competency-based programs on assessing the Connecticut certification eligibility of teachers from states lacking interstate agreements is unclear and an area being discussed by SDE and various stakeholders. The department is contemplating that all incoming teachers – regardless of state – could receive certification to allow employment. Then, within a few years of being certified, each incoming educator would need to complete professional development provided by regional educational service centers (RESCs) to show familiarity with this state's expectations of teachers.

Outside the certification change process, Connecticut and other interstate agreement members are starting to consider whether completion of alternate route programs should be accepted under the interstate agreement. SDE notes alternate route programs vary substantially in quality but have recently proliferated, which means that they could help ease teacher shortages if a way is found to filter out inferior programs. The department is unsure whether this potential change could be adequately considered and developed by all the agreement states, in time for the new interstate agreement to begin in January 2011.

Other states. The other Northeastern states have coursework requirements to varying extents and are members of the interstate agreement. Massachusetts also accepts the preparation of teachers who attended NCATE-accredited programs.

Research. No studies were found to examine empirically the impact of reciprocity policies on teacher supply and teacher quality.

³⁷ An applicant from another state who has not yet completed the 36-hour course in special education may receive a temporary, one-year interim certificate, which allows employment while the educator progresses toward completing the course.

The program review committee recommends the State Department of Education consider whether to expand coursework reciprocity to graduates of NCATE-accredited teacher preparation programs and to graduates of alternate route programs in NASDTEC interstate agreement states.

The department should carefully examine whether expanding coursework reciprocity in these ways is appropriate. Broadening reciprocity policies has the potential to increase Connecticut's supply of teachers but the risk of lessening teacher quality.

Recognizing the preparation of graduates from NCATE-accredited programs makes logical sense because those programs are judged on the same standards as Connecticut's programs. At the same time, the department should be cautious in making this decision because NCATE accreditation might not be a sufficient indicator of program quality. A recent report authored by the former president of Teachers College at Columbia University illustrated how one NCATE-accredited program fell far short of providing high-quality preparation.³⁸

The decision over whether to recognize the preparation of graduates from alternate route programs in NIA states is similarly difficult. "Alternate route" is a broad term that can encompass programs based at universities, run by nonprofit organizations, created by school districts, overseen directly by state education agencies, and fraudulently created by diploma mills. A sufficient reciprocity policy would enable SDE to issue certification only to well-prepared alternate route graduates.

Content knowledge: Subject major. Connecticut's *middle* and *secondary* level teachers generally are required to have a subject major or its equivalent (30 credits) in the content area for which certification is sought.³⁹ *Elementary* education teachers must either major in any academic area except education or have an interdisciplinary major with coursework in academic areas that are closely related, instead of a major consisting of coursework in just one area (e.g., sociology). As discussed later, teachers also are required to meet the state's content knowledge standards by obtaining a passing score on the relevant subject assessment(s) (Praxis II or the foreign language tests).

Proposed changes. SDE's draft regulations call for accepting "closely related" majors for *secondary* level instruction in the shortage areas of math, the sciences, and English to increase the supply of teachers (e.g., a major in engineering or statistics could be considered sufficient for a secondary mathematics endorsement). For *elementary* education teachers, a restructured interdisciplinary major option would consist of coursework in each of the core subject areas the educator is expected to teach: nine credit hours each in math, reading and language arts, and science; and six hours in social studies. (Middle grades certification will be eliminated and secondary certification will be expanded to include grade six, due to the continued low prospective teacher demand for middle grades-specific preparation.)

³⁸ *Educating School Teachers*, Arthur Levine, The Education Schools Project, September 2006. Accessed October 23, 2008, at: http://www.edschools.org/pdf/Educating_Teachers_Report.pdf.

³⁹ There are three exceptions. First, teachers for most areas may have 30 credits in the academic area for which an endorsement is sought, when 9 additional credits are held in a related area (e.g., biology and chemistry). Second, at the middle grades level and for a few secondary content areas, interdisciplinary majors are allowed. Third, cross-endorsements have credit hour requirements, instead of a major requirement.

Other states. At the *secondary* level, most Northeastern states require either a major (Vermont) or 30 credits in the content area (Connecticut, New Hampshire, New Jersey, New York, and Rhode Island). Maine requires 24 credits. Massachusetts has no credit-related requirement for an initial certificate but mandates a master's degree related to the teaching area be obtained to earn a second-level certificate. For *elementary* education teachers, no state in the region requires an academic subject area major. New Jersey requires either an academic subject area major, or a total of 60 credits in liberal arts and sciences subjects. Vermont accepts an elementary education major or 30 credits in elementary education and New Hampshire requires credits in each of the four core subjects taught at the level. Maine has an interdisciplinary course of study option.

Research. There is a consensus among education researchers that some level of *subject knowledge* attained through postsecondary education most likely leads to better student achievement. The value of a *subject major*, however, lacks a research consensus. The body of methodologically sound, peer-reviewed studies, which is somewhat small, does not confirm that a teacher who majored in the subject being taught is more effective than one who did not, with the exception of secondary math and, to a lesser extent, secondary science.⁴⁰ Less research has been conducted in non-math subjects, but high-quality studies generally have not found positive impacts.⁴¹ There is some evidence suggesting that elementary education teacher preparation in either elementary education or across content areas might improve performance.⁴²

The program review committee recommends the State Department of Education consider accepting within its current certification proposals related majors in both teacher shortage subject areas and non-shortage areas, leaving in place the subject knowledge test requirement (Praxis II or foreign language test).

Accepting related majors for all subject areas is a policy that would treat prospective teachers consistently, regardless of field. The committee acknowledges the department for showing flexibility in an effort to ease teacher shortages and believes similar flexibility should be extended to potential teachers in non-shortage areas to maintain consistency across subject areas. The role of certification is to provide minimum competency standards; if the standard is changing to allow related majors for shortage areas, it should change for non-shortage areas, as well, given that research has not proven the value of a subject major (other than for secondary mathematics, and possibly secondary science, which are shortage areas). The subject knowledge

⁴⁰ "The Effect of Certification and Preparation on Teacher Quality," Donald Boyd, Daniel Goldhaber, Hamilton Lankford, and James Wyckoff, *Future of Children* 17(1), Spring 2007.

⁴¹ Ibid, and: *The Link Between Teacher Quality and Student Outcomes: A Research Synthesis*, Laura Goe, National Comprehensive Center on Teacher Quality, October 2007.

⁴² An Educational Testing Service (ETS) analysis of Praxis II passing rates found elementary education teachers who majored in elementary education substantially out-performed those who majored in other subjects, 94 percent to 75 percent. (*The Academic Quality of Prospective Teachers: The Impact of Admissions and Licensure Testing*, Drew H. Gitomer, Andrew S. Latham, and Robert Ziomek, ETS, 1999) ETS does not claim Praxis II is predictive of teacher effectiveness, but the test is supposed to be an accurate assessment of whether a prospective teacher possesses sufficient knowledge to teach. Another study, part of a comprehensive examination of teacher preparation and student achievement in New York City, recently found elementary teachers' preparation in math and teaching math to be associated with higher student test scores, although preparation in language arts did not appear to have an impact. (*Teacher Preparation and Student Achievement*, Don Boyd, Pam Grossman, Hamp Lankford, Susanna Loeb, and Jim Wyckoff, Teacher Pathways Project, August 2008.)

test requirement should remain in place to ensure teachers have sufficient grasp of the subject matter and are considered highly qualified under NCLB.

The program review committee recommends the State Department of Education consider whether an interdisciplinary major should be required for elementary education teachers, rather than giving those teachers a choice between a subject major and an interdisciplinary major.

The department's new interdisciplinary major requirement would give elementary education teachers the subject knowledge they need to educate children in core subjects. In contrast, teachers who choose instead to complete a subject area major are not now and will not be in the future specifically required to complete any coursework in math, science, and social studies as part of teacher preparation. It seems logical that all elementary education teachers need some preparation in each subject they are expected to teach. Under the current certification requirements, an elementary teacher needs to take only a small amount of credits in social studies and could avoid taking science or math coursework altogether.⁴³

Requiring an interdisciplinary major for elementary education teachers could be a feasible way to ensure adequate elementary education subject knowledge preparation. An alternative would be to require a teacher to complete coursework in each of the four core subjects, but this option has two problems. First, finishing more coursework and a subject area major would not be possible within the current teacher preparation structure, based on four years of undergraduate study. Second, there is no logical connection (or research to support such a connection) between an elementary education teacher completing a major in a subject area and that teacher being able to effectively teach three or four *other* subjects.

In moving to at least the option for an interdisciplinary major, SDE is encouraged to consider whether some of the subject area coursework should be in how to teach the particular subject. It is unclear that extensive preparation in a subject area is necessary, but the department's other initiatives (e.g., the beginning educator assessment, content area teacher standards) recognize – and research confirms – the importance of educators knowing how to teach particular subjects.⁴⁴

⁴³ Every Connecticut teacher is required by statute to take a three credit hour course in U.S. history, an area of social studies. As noted previously, a teacher can choose among social studies, natural sciences, and mathematics coursework to meet the general academic coursework requirement, but could opt to leave out any one of these disciplines that the elementary educator will be expected to teach. Accredited higher education institutions require all their students to fulfill math and science requirements, but a student who passes out of the requirement through either high school Advanced Placement scores or a college-specific placement exam does not need to take any additional, college-level coursework. Consequently, a teacher could enter the classroom without having been taught in math or science for four years (since high school).

⁴⁴ For example, see: *Teacher Preparation and Student Achievement*, Don Boyd, Pam Grossman, Hamp Lankford, Susanna Loeb, and Jim Wyckoff, Teacher Pathways Project, August 2008. Accessed October 23, 2008, at: <http://www.teacherpolicyresearch.org/portals/1/pdfs/Teacher%20Preparation%20and%20Student%20Achievement%20August2008.pdf>.

The program review committee recommends the State Department of Education consider whether the precise or related major requirement should be changed to a moderate content area coursework requirement, leaving in place the subject knowledge test requirement.

A certain level of content knowledge is necessary to adequately teach a subject but it is not clear in the research that major-level knowledge is essential. Furthermore, a certain level of content area knowledge is ensured by requiring teachers to meet the Praxis II exam passing scores. If the Praxis II standard sufficiently ensures teachers have a minimum level of knowledge (as the committee finds later in this section), then that Praxis II standard should be adequate. The state may have an interest in a second safeguard (in addition to Praxis II) against certifying teachers with inadequate content knowledge, and for that reason is refraining from recommending the department consider the abolition of content area coursework requirements. Moving to a more moderate coursework requirement would both make sense and give teachers and districts more flexibility.⁴⁵

Maintaining Certification

Coursework beyond a bachelor's degree. To move from a provisional (second-level) certificate to a professional (third- and highest-level) certificate, a teacher must have obtained 30 credits after a bachelor's degree and had at least three years' teaching experience under the provisional certificate. The coursework must be either: 1) part of a planned program at a higher education institution and related to the teacher's endorsement area, providing effective instruction, or meeting district goals; or 2) an individual program designed to provide effective instruction, approved by the teacher and a district supervisor.⁴⁶

The coursework may be at either the undergraduate or graduate level, but many Connecticut teachers receive master's degrees. Table IV-3 shows that over half of new teachers enter the profession in this state with at least a master's degree, and that a full 91 percent of veteran teachers have reached that level of education. SDE does not collect data on the area of the master's degree (e.g., curriculum and instruction, biology).

Proposed changes. SDE's proposal calls for the 30 credits to be completed at the graduate level. The department noted that that it is not recommending a master's degree related to the teaching area for two reasons. First, research is mixed on whether a master's degree positively impacts student achievement. Second, the department believes related advanced, non-master degrees might be helpful (e.g., a law degree for a secondary social studies teacher).

The department is also considering extending the continuing education requirement, currently only applicable to professional certificate holders, to certain educators who have provisional certificates. Educators who obtained 30 graduate credits before reaching the provisional level of certification would have to complete the continuing education requirement to move to the professional level.

⁴⁵ If the department believes a lower coursework requirement is reasonable and should be adopted, C.G.S. Sec. 10-145b(a) would need to be amended.

⁴⁶ C.G.S. Sec. 10-145b(j)

Table IV-3. Percent of Connecticut Teachers Holding Master's Degrees by Certificate Level: School Year 2007-2008*			
<i>Certificate</i>	<i>Total Teachers</i>	<i>Teachers with at least a Master's Degree</i>	<i>Percent of Teachers with at least a Master's Degree</i>
Initial	5,732	3,026	53%
Provisional	13,240	9,128	69%
Professional	18,697	17,038	91%
Total	37,669	29,192	78%
Total of All Teachers with Certificates, Permits, and Authorizations	38,337	29,477	77%
*This table is based on the data SDE had available. It excludes special education teachers. Source of data: SDE			

Other states. Only a few Northeastern states require coursework beyond a bachelor's degree for certification. Teachers in New York and Massachusetts must obtain a master's degree to move to the second (and highest) level of certification.⁴⁷ Massachusetts teachers who obtained a master's degree before becoming certified must complete additional study from among a range of options. Teachers in New Hampshire do not have to earn a master's degree unless they wish to pursue the optional highest-level certificate.

Research. No research specifically addresses whether 30 credits beyond a bachelor's degree improves student achievement, but some research examines master's degrees. Generally, as SDE has acknowledged, research regarding whether teachers' master's degrees lead to better student outcomes is mixed at best. As with subject major preparation, researchers agree that the body of peer-reviewed research is somewhat small but has not found a consistent relationship between a master's degree – even in the subject being taught – and student achievement. The current research consensus is that a secondary teacher's in-subject master's degree in mathematics or, to a lesser extent, science, might positively affect student performance in those subjects, but there is no such evidence for other levels or fields.⁴⁸

⁴⁷ In Massachusetts, the master's degree must be either in the field of the endorsement or in education. In New York, the master's degree must be one of these three options: in the endorsement field, in a different field but with at least 12 credit hours in the endorsement field, or in education if certification was not previously held.

⁴⁸ See summaries of the research in: "The Effect of Certification and Preparation on Teacher Quality," Donald Boyd, Daniel Goldhaber, Hamilton Lankford, and James Wyckoff, *Future of Children* 17(1), Spring 2007. And: *The Link Between Teacher Quality and Student Outcomes: A Research Synthesis*, Laura Goe, National Comprehensive Center on Teacher Quality, October 2007. And: *Teacher Quality: Understanding the Effects of Teacher Attributes*, Jennifer Rice King, Economic Policy Institute, 2003. For a recent study (which did not find positive effects for a master's degree, even in mathematics), see: "Teachers and Student Achievement in the Chicago Public Schools," Daniel Aaronson, Lisa Barrow, and William Sander, *Journal of Labor Economics* 25(1), 2007.

The program review committee recommends the State Department of Education reconsider requiring the coursework to move to professional certification be at the graduate level. The department also should consider whether 30 credits beyond the bachelor's degree should be required for certification purposes.

Researchers agree that teachers with graduate degrees have not been shown to be more effective at improving student achievement than teachers with merely bachelor's degrees, except possibly for secondary mathematics and science. Graduate degrees not only lack a clear connection to improved student achievement but also come at significant expense to educators and those districts that help their teachers pay for advanced study. Furthermore, limiting acceptable coursework to graduate study could dampen teacher supply in shortage areas by making unacceptable for certification purposes undergraduate-level credits completed to obtain cross-endorsements. Therefore, teachers should not be required to engage in graduate level education as a requirement for continuing certification.

Educators might benefit from graduate-level study through having more content knowledge or increased contacts with teachers in other school districts, but existing research indicates holding a master's degree does not improve student achievement for most subjects. Some researchers assert that graduate-level study has the potential to improve teachers' practices but has not done so thus far because the quality of some education-focused graduate programs is believed to be weak.⁴⁹ If SDE strongly believes graduate study is necessary to ensure teacher quality for certification purposes, then the department should consider what would comprise an effective graduate program for teachers and issue program approval and teacher requirements accordingly.

The program review committee recommends the State Department of Education seek and use input from Connecticut's education stakeholders in considering whether the recommendations regarding teacher coursework requirements should be adopted.

Continuing education. Connecticut teachers holding a professional certificate are required to complete 90 hours of continuing education (i.e., nine continuing education units) over five years. Each teacher, then, could meet the requirement solely by attending the 18 hours of continuing education per year districts are mandated to provide. Districts may provide whatever continuing education they wish.

Proposed changes. SDE has been discussing two key revisions to the continuing education requirements. First, the amount could rise to 150 hours if included as part of the department's 2009 legislative package. The change would become effective July 1, 2014. Second, teachers would explicitly be allowed to earn the continuing education increase of 60 hours through job-embedded professional development. Job-embedded professional development involves considering activities performed in the regular course of practice, such as serving on a curriculum committee, or activities that are closely tied to classroom teaching. The department has been considering asking SBE to adopt this measure in guidelines, in fall 2009.

⁴⁹ "Learning in the Teaching Workforce," Heather C. Hill, *Future of Children* 17(1), Spring 2007. Accessed October 21, 2008, at: http://www.futureofchildren.org/usr_doc/7_06.pdf.

There is some indication that the education department was intending to make different initial proposals for discussion at the SBE meeting in early December, but no further information was available as of this report's printing.

In addition to these potential changes, the department's legislative proposals likely will include taking continuing education and professional development requirements (other than hours required) out of statute and moving them to SBE guidelines.⁵⁰ The transfer would make the continuing education and professional development guidelines easier to change in response to new federal or legal requirements, or emerging research, according to SDE.

Other states. The amount of continuing education required by Northeastern states varies from 18 to 20 hours per year in Connecticut, Maine, and Vermont, to 30 to 35 hours per year in Massachusetts and New York.⁵¹ A few states (Massachusetts and New Hampshire) allow a portion of continuing education to be job-embedded.

Vermont has a unique approach. Teachers are to follow an online workbook that provides guidance on how to engage in meaningful professional development through a written portfolio. The workbook encourages the teacher to explicitly connect professional development with needs of the district and students, as well as with state standards. Job-embedded professional development that involves teaching is strongly encouraged. Each educator's portfolio is evaluated at least once every five years by a volunteer local standards board, which uses the evaluation to renew or discontinue the teacher's certification.

Research. Education researchers agree that most research on continuing education relies on teachers' self-reporting whether an activity improved their knowledge and changed their teaching practices, instead of examining whether student achievement changed.^{52,53} A few researchers have studied small-scale, intensive professional development programs focused on improving teachers' subject-specific instructional methods, and they have found substantial

⁵⁰ Districts are required by statute to provide instruction – called professional development – annually to all their teachers in a variety of health and education topics (e.g., drugs, conflict resolution, literacy readiness, and second language acquisition). Districts are also encouraged to include in professional development several historical and social awareness topics (e.g., Holocaust, Irish famine, Puerto Rican history, personal financial management). (C.G.S. Sec. 10-220a(a)).

⁵¹ States' terms of validity for highest-level certificates vary, so comparing the amounts of continuing education on a per-year basis is more useful than simply stating the total amount of continuing education required. Information on Rhode Island's website was conflicting and the department did not respond to several committee staff requests, so none is presented here.

⁵² *McREL Insights; Professional Development Analysis*, Ravay Snow-Rennier and Patricia A. Lauer, Mid-continent Research for Education and Learning, 2005. Accessed September 5, 2008, at: http://www.mcrel.org/PDF/ProfessionalDevelopment/5051IR_Prof_dvlpmt_analysis.pdf.

⁵³ Much of this research is a series of evaluations of the Eisenhower professional development program, which was a federal program that funded continuing education for math and science teachers. For a frequently cited example, see: "What Makes Professional Development Effective? Results From a National Sample of Teachers," Michael St. Garet, Andrew C. Porter, Laura Desimone, Beatrice F. Birman, and Kwang Suk Yoon, *American Educational Research Journal* 38(2), Winter 2001. Accessed September 5, 2008, at: <http://aztla.asu.edu/ProfDev1.pdf>.

positive impacts on student achievement.^{54,55} The sets of research show the same results, that a professional development activity is effective when it:

- involves many hours;
- focuses on building content knowledge and how to teach content using subject-specific teaching methods and techniques; and
- is aligned with other school, district, and state efforts (e.g., reform efforts, curricula, standards).

All these characteristics must be present. An activity that requires much time but is neither focused on subject-specific teaching nor aligned with other efforts most likely will not be very effective.

The education community in Connecticut agrees that *the purpose of a certification continuing education requirement is to ensure teachers are continually improving their practice and thereby also improving student learning.*⁵⁶ Neither SDE nor any other groups have comprehensively assessed whether this purpose is being met by studying either teachers' assessments of the professional development they receive or post-activity student achievement data.

Despite a paucity of evidence on quality, interviews conducted during this study revealed *there seems to be broad consensus among education constituencies in Connecticut – including many within SDE – that continuing education currently is not effective in some districts.* The widely perceived inadequacy of some continuing education was recognized by the draft recommendations of the 2006 Educator Continuum Sub-Committee on Teacher Evaluation and Ongoing Professional Development. The sub-committee called on SDE to develop standards for high-quality professional development and give technical assistance to districts to help them implement continuing education adhering to those standards.

To assess whether teachers feel continuing education is valuable, the survey of currently certified educators included some questions on the quality of professional development. The responses of educators who had received a continuation of the professional certificate are most relevant and presented below, since this group was required to complete professional development for continuing education unit (CEU) credit, but the responses of all the other educators were similar. Most (77 percent) educators who renewed a professional certificate acquired all or the majority of their CEUs in-district. Overall, their perception of district continuing education is mixed. A little more than a quarter

⁵⁴ “Learning in the Teaching Workforce,” Heather C. Hill, *Future of Children* 17(1), Spring 2007. Also: “Teaching Teachers: Professional Development to Improve Student Achievement,” American Educational Research Association, *Research Points* 3(1), Summer 2005. Accessed September 5, 2008, at: http://www.aera.net/uploadedFiles/Journals_and_Publications/Research_Points/RPSummer05.pdf.

⁵⁵ Research of less intensive programs with short duration and few contact hours has shown slight positive or no effects. See: *McREL Insights; Professional Development Analysis*, Ravay Snow-Rennier and Patricia A. Lauer, Mid-continent Research for Education and Learning, 2005.

⁵⁶ SDE’s 1999 document *Connecticut’s Commitment to Continuous Improvement* states, “The intent behind the statutory requirement for CEUs is to ensure that educators are provided with high quality, rigorous professional development experiences linked to advancing student learning” (p. 62).

(27 percent) of these veteran educators indicated in-district professional development has not improved their teaching. Nearly half (47 percent) believe their district has met their professional needs only “sometimes.”

Out-of-district professional development was viewed by respondents as more useful. Only five percent of veteran educators indicated out-of-district continuing education has not improved their teaching. Although in-district continuing education is more popular, many educators – 60 percent of survey respondents – take advantage of out-of-district continuing education.

The education department believes the shift to encouraging teachers to complete job-embedded continuing education will result in more effective professional development, and education constituencies generally agree. Job-embedded continuing education, appropriately implemented, would likely be more effective than traditional professional development, according to the literature, because it would involve more hours and be closely focused on improving teaching and student learning in the content area. One recent, frequently discussed proposal, however, limits optional job-embedded professional development to one-third of all continuing education hours; the majority (at least 90 hours) would still be obtained from traditional professional development.

SDE’s rationale for the potential proposal of increasing the total amount of continuing education hours to 150 is based largely on other states’ requirements. There is no research indicating an increase solely in total hours spent on all professional development will improve effectiveness. Moreover, there is not consensus on this issue among stakeholders who will be affected by the change. Even so, the proposed quantity standard would equate to one hour of job-embedded professional development for each month – far short of the time research shows is needed to impact teaching.⁵⁷ Increasing the quantity of continuing education would be of little use because quality is perceived to need considerable improvement in many districts.

The program review committee recommends C.G.S. Sec. 10-145b(l)(1) be amended to require each teacher holding the state’s highest-level certification shows the teacher has engaged in meaningful professional development over the duration of the highest-level certificate. The teacher must demonstrate, in a format and in accordance with standards and guidelines developed by the State Department of Education, that each professional development effort was: 1) substantial in duration; 2) connected to student learning and teaching in a subject for which the teacher holds or is pursuing an endorsement; 3) involving the teacher applying in the classroom what was learned; and 4) aligned with state teaching standards and the needs of the teacher’s district and students.

⁵⁷ See: “Learning in the Teaching Workforce,” Heather C. Hill, *Future of Children* 17(1), Spring 2007. Also: “Teaching Teachers: Professional Development to Improve Student Achievement,” American Educational Research Association, *Research Points* 3(1), Summer 2005.

The State Department of Education should develop a list of activities that are acceptable forms of professional development. Such activities must first be connected to improving teaching or, secondarily, obtaining a cross-endorsement. At minimum, the list should include the following activities (in no particular order):

- 1) formally mentoring one or more beginning teachers;**
- 2) participating in or leading district or school level committees, initiatives, or seminars on any of the following topics: a) developing and/or teaching a new curriculum; b) assessing students (including development of assessments) and using assessment data to adjust instruction; c) differentiating instruction for diverse learners; and d) obtaining school accreditation;**
- 3) completing coursework to obtain a cross-endorsement;**
- 4) completing a research project that is focused on improving student learning;**
- 5) serving as a teacher-in-residence at the State Department of Education; and**
- 6) working on obtaining certification by the National Board of Professional Teaching Standards.**

The current continuing education structure for maintaining state teacher certification is in need of revamping. The system is perceived by many as failing to meet its current purpose of improving teaching, and lacks guidelines or structures encouraging teachers to focus on improving teaching and, ultimately, student learning. CEUs are perceived as a requirement that teachers spend a certain number of hours attending continuing education, without any progress towards improving the quality of their teaching. If the main purpose of continuing education is to advance teaching skills and apply those skills to the classroom, Connecticut's requirements need to be more focused on improving teacher quality, which this recommendation achieves. At the same time, the recommendation provides teachers with a range of concrete, appropriate options to fulfill their professional development requirements for certification. Many of these options already are allowed under current SDE guidelines but seem to be infrequently used.⁵⁸

The recommended structure incorporates a shift from “continuing education” to “professional development” with the overarching goal of improving teacher quality and student achievement. The criterion for obtaining re-certification will change from having *attended* continuing education for a required number of hours, to having *engaged* in efforts to develop and improve one's overall professional abilities as a teacher. This proposal also is consistent with the current paradigm shift in education, from one that focuses on what is put *into* the education process to one that emphasizes what is *produced from* that process.

⁵⁸*Connecticut's Commitment to Continuous Improvement*, SDE, 1999. Accessed October 30, 2008, at: <http://www.sde.ct.gov/sde/lib/sde/PDF/EducatorStandards/commit.pdf>.

The program review committee recommends the State Department of Education, as part of its forthcoming initiative to produce new teacher evaluation standards, require a teacher’s professional development efforts be discussed and considered as part of the district’s teacher evaluation process.

This recommendation cements the link between professional development and teacher, student, and district needs. As indicated in Table IV-2, the department is in the process of establishing an initiative that would produce new teacher evaluation standards. This initiative provides the proper forum to integrate and incorporate teachers’ professional development efforts into their districts’ teacher evaluation processes.

Missing from the above set of recommendations is an appropriate oversight mechanism for SDE to use to ensure teachers are fulfilling their professional development requirements for certification purposes. The committee believes such a mechanism needs very careful thought, consideration, and discussion, including input from the various constituencies impacted by the new professional development requirements, before being implemented. In addition, such an oversight structure is an administrative process rather than one defined in statute.

The program review committee recommends prior to adoption of the new professional development requirements, the State Department of Education – as part of its current stakeholders committee process – begin discussing the framework of a proper oversight and approval mechanism for the new professional development system for teachers. The department should use the framework to fully develop its administrative structure for a professional development oversight and approval process.

There is a lot at stake in making sure an appropriate, uniform, and fair oversight system for professional development is designed and implemented. A collaborative process between the department and the pertinent stakeholders is the most realistic format for achieving a workable solution and developing such a system.

CERTIFICATION REQUIREMENTS: ASSESSMENT

An educator must meet Connecticut’s minimum test standards to be fully certified as a teacher or administrator in this state. Each test’s standard is set by the State Board of Education with input from a panel of Connecticut teachers and preparation program faculty who have expertise in the assessment’s content area. The panel of educators recommends a passing score to the board, based on a standardized process required and guided by the testing company.⁵⁹ The process involves panelists’ evaluations of how important each item on the test is to the job of a beginning teacher and about how many just-sufficient beginning teachers would know the correct answer.

⁵⁹ All of Connecticut’s current licensing tests are developed by Educational Testing Service. The State Board recently adopted a reading instruction test for elementary education teachers; that test is administered by Pearson, another major testing company. ETS and Pearson use the same standards-setting process.

This subsection focuses on the Praxis basic skills assessment and content knowledge tests. Endorsements in most subject areas require one or more Praxis II assessments, except those in foreign languages require the American Council on the Teaching of Foreign Languages tests. The professional knowledge assessment – currently the Beginning Educator Support and Training (BEST) portfolio – was covered in depth during Phase I of the teacher certification study. The Praxis and foreign language tests will become the only assessments uniformly required of Connecticut teachers (outside those determined by teacher preparation programs) if a task force examining how the beginning educator requirements should change, recommends the discontinuance of a professional knowledge assessment.

Background

The 1986 Educational Enhancement Act set in place requirements that educators must pass tests in three areas – basic skills, content (i.e., subject) knowledge, and professional knowledge – to obtain or maintain certification.⁶⁰ For each area, the State Department of Education determined whether there were any existing national assessments. In most areas, the Educational Testing Service had developed Praxis tests: Praxis I for basic skills and Praxis II for subject-specific knowledge. For each content area that had assessments, the department convened a panel of educators from that content area to evaluate the appropriateness of and proper standard for the test. Multiple Praxis II tests became required for subjects in which the State Board of Education supported the panel's determinations that each of the tests covered distinct and important areas.

When neither the Praxis tests nor any other existing assessments were found appropriate by the panels in basic skills and elementary education, the education department contracted with a testing firm to create assessments tailored to this state's needs.⁶¹ A few other content areas lacked appropriate assessments but had relatively few educators; in this case, SDE decided to have no test. As national tests for basic skills, elementary education, and some subject areas were updated throughout the 1990s, SDE again convened panels and, when recommended by the panels, moved forward in adopting them.

Panel Selection

For every assessment, each state education department convenes a panel of educators from within the state having expertise in the content area to recommend the state's own passing score. The Connecticut State Department of Education generally relies on referrals from staff, and administrators contacted by staff, to recruit standards-setting panelists. Potential panelists' names are referred to the SDE staff person in charge of certification test standards-setting⁶² by the department's curriculum and BEST staff, school and district administrators contacted by curriculum staff, and sometimes other panelists. The nominees fill out a basic application and nearly always are accepted as panelists, according to SDE. If a nominee is not familiar to SDE,

⁶⁰ The testing requirements are mandated by C.G.S. Sec. 10-145f.

⁶¹ The state contracted with National Evaluation Systems (NES), which in April 2006 became part of what is now called Pearson.

⁶² This person currently spends only a small fraction of work time on standards-setting duties. Much more of her time was dedicated to these duties in the 1980s and 1990s, when the tests and standards were first being adopted.

his or her supervisor is contacted for a telephone conversation about whether the nominee is well-regarded and has leadership qualities. Department staff notes that nominees may be rejected in an effort to make each panel geographically and ethnically representative of the state's educator population, and some invited panelists are unable to attend due to various reasons. The resulting standards-setting panel comprises 10 to 16 teachers and teacher preparation program faculty selected by SDE; the majority is teachers with three to ten years of experience.⁶³

The program review committee recommends the State Department of Education make a stronger effort to draw assessment panelists from the broader education community. The department should consider asking all principals and department chairs to: 1) apply to be panelists; and 2) suggest teachers and colleagues as panel nominees.

The panelists play a critical role in certification by recommending what minimum level of knowledge is expected of newly certified teachers. As such, it is important that the panels be as representative as possible. The program review committee recognizes it is likely SDE has chosen this process to limit the time required to evaluate nominees. However, expanding the pool of panelists could happen through an effort demanding relatively little time. For example, the department could send an e-mail sent to all districts, asking them to inform principals and department chairs of an opportunity to submit a brief application to serve on an assessment panel. If many applications are received, perhaps applicants could be randomly chosen for service, with phone calls to supervisors of those selected to confirm fitness. The effort will result in panels that are more diverse, a goal which SDE staff noted is sometimes difficult to reach.

Setting Standards

The committee finds *the certification assessment standards-setting process and criteria used by the panel are appropriate and uniform across states and tests*. Standards-setting is based on the judgments of educators in a way that ensures certification standards are legally defensible and specific to the reasonable expectations of a state's educators.⁶⁴ The process is guided and directly monitored by the testing company, and the standards recommended by the educator panel are approved or revised by the State Board of Education.

The standards-setting panel is trained by SDE and the testing firm. Then, each panelist evaluates every test item regarding: 1) relevance to the content area teacher's job; and 2) what percent of just-sufficient beginning teachers would provide the correct response. The panelists' evaluations are aggregated to determine whether the test and each item were judged to be job-relevant by a strong majority of the panelists, as the state's job-relevance standards must be met for the test and recommended test score to be considered valid. Connecticut's job-relevance standards were the highest among of the 49 states and state agencies that used Praxis II

⁶³ The testing companies recommend educators with this level of experience because they have found these teachers generally are experienced and familiar with what is currently expected of beginning teachers.

⁶⁴ The Educational Testing Service document "Understanding Teacher Assessment; Significant Decisions in Testing Litigation," published in 1999 (the most recent litigation summary available), describes how educator certification assessments have been upheld by the judicial system when the assessments have been validated for job relevance and appropriateness to beginning teachers.

assessments in 2004 (the most recent data available). More detailed information on the panel's standard-setting process is found in Appendix E.

Based on the panelists' evaluations, a recommended passing score is computed and submitted to the State Board of Education. The board decides what the final passing score should be, either accepting the recommended passing score or, rarely, choosing to make the passing score higher or lower.⁶⁵

Monitoring

Passing rates. The Praxis passing rates of Connecticut test-takers are informally reviewed annually for year-to-year consistency by SDE staff. A test's passing rate has never meaningfully fluctuated over the course of a year, according to the department. SDE examines the passing rates more thoroughly every five years. When a test has a five-year passing rate below 70 percent, the department convenes a panel of educators to re-evaluate whether that assessment's standard is set at the appropriate level.⁶⁶ The panelists review the test to determine whether it is appropriately structured, up-to-date, and rigorous, and recommend the passing score be adjusted (or not) accordingly. The state board receives the panel's recommendation and makes any necessary adjustments.

Panel reviews of tests due to passing rates have occurred twice since the Praxis tests were adopted in the 1990s. The Praxis II secondary mathematics panel recommended the score be lowered in 2001 due to technical problems with how the original score was set; the recommendation was accepted by the board. Panels were convened for the Praxis II secondary-level English, mathematics, and general science examinations in 2005. Only the general science panel recommended the passing score be lowered (solely for the essay component), due to format and a discrepancy in the passing rate between the essay and multiple choice sections. The state board rejected this recommendation and so upheld the existing standard.

The State Department of Education is aware a relatively low passing rate might indicate a problem with the test or the passing score, and takes appropriate steps to address those possibilities. There is another possible cause of low passing rates, however, that should be considered when a panel upholds the test and passing score: inadequate preparation in the subject area or subject-specific pedagogy. Each program's Praxis II passing rates are given annually to both the respective program and SDE, and are considered part of Connecticut's accreditation process. If that data shows over several years that certain programs' teacher candidates persistently underperform in one or more particular content areas, then changes should be made to how potential educators are trained to teach those content areas, by those programs.

⁶⁵ When the board decides to deviate from the recommendation, the passing score is adjusted by the number of points that correspond to the standard error of measurement, a statistical measurement of error.

⁶⁶ The 70 percent threshold for a final passing rate was determined by SDE to be a reasonable level.

Currently, SDE will only undertake a one-day site visit to a preparation program when the program's *aggregate* Praxis II passing rate falls below 80 percent.⁶⁷ This standard inappropriately ignores low pass rates in *particular* content areas. An examination of recent institutional Praxis II passing rates found in Connecticut's most recent Title II report to the U.S. Department of Education, however, does not show that any preparation program's passing rates recently have fallen below 80 percent.⁶⁸ The department noted no program's passing rate has ever been at that low level. For that reason, the committee refrains from offering a recommendation in this area.

Content. The education department does not consistently monitor whether each basic skills exam (i.e., Praxis I) and content test (i.e., Praxis II) reflects current practice and expectations of beginning teachers. SDE recommended to the State Board of Education in 2001 that every three years the department convene small panels for this purpose but such monitoring has not occurred, since that year. The Praxis firm, Educational Testing Service, has not updated either the basic skills test or the most of the content area tests (the exceptions being business education and family consumer science) since Connecticut adopted them in the late 1980s and early 1990s.

The program review committee recommends the State Department of Education convene small panels of educators every five years to re-evaluate whether the basic skills and content area assessments and assessment standards remain appropriate.

Content field knowledge, teaching techniques, and what is expected of teachers and students evolve over time and are the basis of the state's assessment standards. This recommendation will ensure that state exams and standards remain consistent with current practices and expectations.

Implementation

Meeting the state's standards on the Praxis I (basic skills) tests – or receiving a waiver, based on sufficiently high test scores on widely used standardized assessments – is a statutory requirement of entry into Connecticut teacher preparation programs and, for out-of-state applicants, Connecticut educator certification (including permits).⁶⁹ Educators can obtain a Praxis I waiver by submitting test scores on widely used standardized assessments that meet the standard set forth in state law.⁷⁰

⁶⁷ "Title II – State Report 2007 – Connecticut; Low Performing Programs, Section V," U.S. Department of Education. Accessed October 24, 2008 at: <https://title2.ed.gov/Title2DR/LowPerforming.asp>.

⁶⁸ "Title II – State Report 2007 – Connecticut," U.S. Department of Education. Accessed October 24, 2008 at: <https://title2.ed.gov/Title2DR/CompleteReport.asp>.

⁶⁹ Passing the Praxis I standard is mandatory for all endorsements that require a bachelor's degree except for school business administrator. In addition, the education commissioner may waive the Praxis I requirement for various trade-related endorsements (R.C.S.A. Sec. 10-145d-405).

⁷⁰ Statute lists the following tests (and a standard for each) that must be met to obtain a Praxis I waiver: American College Testing (ACT), Scholastic Aptitude Test (SAT), Graduate Record Exam (GRE), or the Prueba de Aptitude Academica with either English as a Second Language Achievement Test (ESLAT) or the Test of English as a Foreign Language (TOEFL) (C.G.S. Sec. 10-145f).

The subject area assessment standard, if one has been set for the endorsement area, must be met by all applicants for full certification, Durational Shortage Area Permits, and 90-day permits issued to recent graduates of Connecticut alternate route programs. About three-fifths of all currently certified teachers have met the subject area assessment standard, as shown by Table IV-4 below. Most of the remaining teachers were first certified before the assessment(s) for their areas were phased in and were exempted from the subject knowledge assessment requirement set forth in C.G.S. Sec. 10-145f. (It is likely many of those at the initial and provisional levels were first certified before the subject assessment requirement became effective with the adoption of the tests in the late 1980s and early 1990s, and have not taught a sufficient number of years to advance their certificates. Instead, they have merely renewed their certificates.)

Table IV-4. Percent of Certified Teachers Who Were Required to Have Met Subject Area Assessment Standard (Praxis II or Foreign Language Test): October 2008*				
	<i>Certificate Level</i>			
	<i>Initial</i> (n=13,927)	<i>Provisional</i> (n=21,733)	<i>Professional</i> (n=34,677)	<i>All 3 Levels</i> (n=70,337)
Percent of All Certified Teachers, at Certificate Level	20%	31%	49%	100%
Percent of Teachers At Certificate Level, Required to Have Passed Subject Area Assessment	90%	91%	28%	60%

*Excludes certified educators who do not hold at least one teaching endorsement (e.g., school nurses not teaching health class). Those who hold interim certificates are also excluded because interim certificates are issued to educators who have met all certification requirements except one or more subject area tests and/or a certain coursework (e.g., a 36-hour course in special education).
Source of data: SDE

In addition to the subject area tests, all teachers or certification applicants applying for an endorsement in early childhood education or elementary education will need to pass a reading instruction test administered by Pearson, beginning July 1, 2009. The same test is required for these endorsements by Massachusetts.

Passing rates. The ability of potential educators to meet Connecticut’s Praxis I standard has been about the same for the last 14 years. Nearly 90 percent of those who applied for Connecticut certification or took the Praxis I test for entry into an in-state preparation program met the state’s basic skills standard, as shown by Table IV-5 below. About 40 percent of those meeting the standard received test waivers, and the remainder passed the Praxis I test. Approximately 80 percent of those who needed and attempted to pass Praxis I, did so by their final try. (An educator may choose to take Praxis I once every 60 days as many times as is

necessary to pass the test.) The initial and final pass rates for each component of the Praxis test and for the test as a whole are found in Appendix F.

Table IV-5. In-State Teacher Candidates' and Out-of-State Certification Applicants' Ability to Meet Praxis I Standard: 1994-2008			
	<i>June 1994- Dec. 2000</i>	<i>Sept. 2000- Aug. 2005*</i>	<i>Sept. 2005- Aug. 2008</i>
Number of candidates and applicants	25,987	28,254	14,681
Percent of candidates and applicants who received waivers	40%	39%	43%
Percent of candidates and applicants who passed Praxis I on final try, of those who took it	78%	83%	81%
Total number (and percent) of candidates and applicants who met the Praxis I standard through either waiver or Praxis I test results	22,542 (87%)	22,250 (89%)	13,081 (89%)
*There is some overlap (September, November, and December 2000) due to available data. Source of data: SDE			

Subject area assessment passing rates for 1994 through 2008 also are presented in Appendix F. Three conclusions can be drawn about the passing rates, based on the data in the table. First, some test-takers improve their performance by taking the test multiple times. The re-test option allows more potential educators to meet the certification standard. Second, there are no consistent trends in passing rates across areas over time. A few subject areas saw their final passing rates increase (business education and elementary education), while others areas' rates declined, fluctuated, or remained the same. Third, the passing rate varies across areas. In the most recent years (September 2005 through August 2008), the rates ranged from not quite 70 percent in general science and middle school science to 95 percent and above in art, elementary education, and special education.

Passing scores compared to other states. Praxis assessment standards vary among states. Although each state follows the same standards-setting process, their educators who set the standards may have different ideas about what type and level of knowledge is important for beginning teachers – which ultimately are the bases for the passing score. It is also important to note that although nearly all tests have the same scaled score range (100-200), scores should not be compared across tests to determine the relative difficulty of obtaining passing scores.⁷¹

⁷¹ A test could have a relatively high passing score because it has a large portion of items judged to be job relevant and well-known by many sufficient beginning teachers. Such a test could be easier than an assessment with a lower proportion of items judged to be job-relevant and less well-known by sufficient beginning teachers.

Connecticut's Praxis passing scores generally are high; the scores and how they compare to states in the region and across the country are found in Appendix G.

Reciprocity. Educators' Praxis and foreign language test results are valid for Connecticut certification, regardless of where the test was taken. Twenty-three states require Praxis I of all educators⁷² and 31⁷³ require Praxis II of educators in certain fields.⁷⁴

Some other states, including New York and Massachusetts, require educators to take state-specific basic skills and subject area tests (not part of the Praxis series) that are not accepted for Connecticut certification. Consequently, educators from those states who apply for Connecticut certification must take a second round of tests (Praxis), and educators from Connecticut who apply for certification in non-Praxis states must take a second round of tests (state-specific).⁷⁵ Nationally, Colorado is the only state that accepts any state-specific or Praxis test scores that meet certain standards unconditionally.

SDE is holding discussions with the Massachusetts education department regarding how to facilitate testing reciprocity. Each state's education department would like the ability to accept the test results of educators who have taken the basic skills and/or subject area assessments required by the other state. Coming to a testing reciprocity agreement involves closely examining each test to determine a score that is equivalent to the state's standard for its preferred test, according to SDE. Despite the substantial time necessary to determine the passing scores, the department believes and the committee concurs that the resulting reciprocity would greatly enhance teacher mobility and therefore could help ease any teacher shortages. SDE also noted it intends to contact New York regarding potential testing reciprocity and Colorado about the testing and logistical issues around accepting all state-specific and Praxis test scores.

The program review committee recommends the State Department of Education continues its efforts in developing testing reciprocity with Massachusetts and New York and periodically report on its progress to the State Board of Education.

⁷² An additional three states accept Praxis I results as one way to meet the basic skills requirement.

⁷³ One additional state, Colorado, accepts either Praxis II or state-specific subject tests.

⁷⁴ "State Notes; Teacher Certification and Licensure/Testing Requirements," Angela Baber, Education Commission of the States, January 2008, <http://www.ecs.org/clearinghouse/77/13/7713.pdf>

⁷⁵ Massachusetts and New York do not accept Praxis scores, but New Hampshire and Vermont will exempt teacher certificate applicants from testing requirements or accept state-specific test scores when certain experience or testing-area requirements have been met. New Hampshire exempts applicants from other states who have at least seven years' experience teaching under a full certificate, and accepts state-specific (i.e., non-Praxis) test scores. However, if certain areas are not tested by the state-specific test, then that portion of the Praxis test must be taken. Vermont accepts state-specific tests only from educators who have at least three years' experience teaching under a full certificate in another state. Both states require the sending state's passing score to be met. This means that applicants from out-of-state might need to meet a different assessment standard than those from in-state. Maine and Rhode Island did not respond to PRI staff requests for testing reciprocity information and no such information was found on the Internet.

Connecticut Teacher Certification Requirements and Student Achievement

The committee was interested in reviewing whether the state's certification requirements contribute to the achievement gap in Connecticut. The achievement gap can generally be described as "the persistent and significant disparity between the academic achievement of low income and minority children and their white, middle class peers."⁷⁶

A determination was made to examine the achievement gap issue within the context of teacher certification requirements as a way to narrow the overall breadth of the achievement gap topic. In other words, the committee wanted to know if a link exists between the achievement gap in Connecticut and this state's certification requirements for teachers.

No studies were found focusing solely on Connecticut's certification requirements and student achievement in this state's public schools. Interviews conducted during this study further confirmed that any connection between student achievement and Connecticut's certification requirements has not been a specific topic of research within the state. As such, the committee looked to external research and relied on findings in the national literature examining the possible connection between state teacher standards and student achievement, as discussed below.

It is documented in the national literature that numerous factors influence student achievement beyond solely state teacher certification standards. Research regarding the effect of state certification on student achievement has been mixed, with many studies failing to employ a rigorous, comprehensive evaluation methodology. There is some research that examines whether distinct teacher qualifications that states can choose to adopt as certification requirements, impact student achievement. As noted earlier in this section, the literature has not shown that certain teacher qualifications (subject major and master's degree) generally are useful in improving student achievement. At the same time, there is broad consensus, that quality teachers are the critical component to student achievement.

There was some interest on the part of the committee to examine the achievement gap from the following perspectives: 1) identify the extent of the achievement gap in Connecticut in comparison with other states; 2) determine whether Connecticut's certification requirements for teachers impact the achievement gap in the state; 3) outline the state's current initiatives to address the issue of low student achievement within schools; and 4) identify what, if any, certification differences exist for teachers between this state and surrounding states with higher student achievement than Connecticut. Although basic information in a broad context outlining the achievement gap in Connecticut is provided, the issue was principally examined based on the relationship between the achievement gap and the state's certification requirements. Moreover, information regarding the certification requirements used in surrounding states was provided earlier in this section and outlined in Appendix D.

⁷⁶ See: ConnCAN, Issue Brief, Number 1, July 2006.

Extent of Achievement Gap in Connecticut

At the briefing meeting in June, the point was made that Connecticut has the most pronounced achievement gap in the country. The National Assessment of Educational Progress (NAEP), overseen by the U.S. Department of Education and often referred to as “the nation’s report card,” is a commonly used resource to measure Connecticut’s achievement gap and compare Connecticut to other states⁷⁷. NAEP assessments are conducted periodically in mathematics, reading, science, writing, the arts, civics, economics, geography, and U.S. history.

Appendix H provides 2007 NAEP results for reading and math achievement for students in fourth and eighth grades. Reading and math are the key assessments reported by NAEP, and the achievement gap information is presented for those students and topics. The appendix provides information for poor and non-poor students based on the variable “free and reduced-price lunches (subsidized through the federal government)” as the primary measurement of achievement and income level. The appendix also provides NAEP assessment results based on race and ethnicity.

As Appendix H shows, Connecticut ranked last (i.e., had the largest gap) in 2007 among the 50 states and the District of Columbia when examining the difference between NAEP assessment scores for poor and non-poor students in reading and math at the fourth and eighth grade levels. Connecticut ranked near the bottom when examining the achievement gap in terms of race.

State Certification and the Achievement Gap

As discussed earlier in this section, Connecticut is currently in the process of redesigning its certification standards for teachers primarily with the focus to improve learning for all children. Some education reformers recommend higher state certification standards as the key measure for teacher quality, and thus student achievement. At the same time, others believe state certification requirements cannot adequately define or promote quality, and that rigorous certification requirements may negatively impact the state’s ability to attract and meet the demand for teachers, or even deter quality educators from teaching.

As referenced earlier in this section, however, there is limited and mixed national research that examines the relationship between different aspects of certification and student achievement.⁷⁸ Several syntheses available of studies and evaluations conducted throughout the country as a way to understand what researchers have concluded about certification requirements and student achievement were reviewed.⁷⁹ The following provides a general summary of

⁷⁷ See: <http://nces.ed.gov/nationsreportcard/about/>. Last accessed on December 4, 2008.

⁷⁸ Some studies include: “The Effect of Certification and Preparation on Teacher Quality,” Donald Boyd, Daniel Goldhaber, Hamilton Lankford, and James Wyckoff, *Future of Children* 17(1), Spring 2007; “Does Teacher Certification Matter,” Daniel Goldhaber and Dominic Brewer, *Educational Evaluation and Policy Analysis*, Summer 2000, Volume 22, No. 2.

⁷⁹ See “The Link Between Teacher Quality and Student Outcomes: A Research Synthesis,” Laura Goe, *National Comprehensive Center on Teacher Quality*, October 2007. “Eight Questions on Teacher Licensure and Certification: What Does the Research Say?” *Education Commission on the States*, December 2005. “Teacher Quality: Understanding the Effectiveness of Teacher Attributes,” Jennifer K. Rice, *Economic Policy Institute*, 2003.

research findings for several attributes commonly used by states, including Connecticut, to initially evaluate prospective teachers:

- *Verbal ability*: Research shows a strong relationship between a teacher’s verbal ability, as determined through formal measures of aptitude (e.g., academic performance, standardized tests), and student achievement. Measures of a teacher’s verbal ability through academic proficiency are important indicators of teacher quality and effectiveness, particularly for the achievement of at-risk students.
- *Experience*: The consensus is that teaching experience, particularly after the first few years of teaching, benefits student achievement. Teacher effectiveness based on experience tends to plateau, and there is no evidence that effectiveness increases with experience after the first five years of teaching. Experience may be more important for high school teachers than for teachers in lower grades.
- *Preparation*: There is some limited evidence showing a link between the selectiveness of a teacher’s preparation program and student achievement. Knowledge of both subject matter and how to teach subjects (i.e., pedagogy) is important in improving student performance, but it is not known exactly which levels of subject and pedagogical knowledge are necessary to positively impact student achievement, as there appear to be diminishing returns for most subjects.
- *Certification*: The overall research is unclear because of methodological problems. Generally it indicates little difference on student achievement between fully certified teachers or emergency certified teachers, and suggests no certification is associated with lower student achievement, but a clear consensus has not emerged. A positive link has been established for certified math teachers at the secondary level and secondary student math achievement.
- *Advanced degree*: Research, which is somewhat limited, indicates there is not a connection between having an advanced degree in subjects outside of the subject taught and student achievement, except for secondary math (and to a lesser extent, secondary science) teachers.

Current State Initiatives to Address the Achievement Gap

There are several initiatives underway within the State Department of Education to help address the achievement gap issue in Connecticut. Many are relatively new and so the critical steps of actual implementation and consistent follow-through remain an unknown. The descriptions provided below are examples of major state-led reforms. There are other initiatives

“Indicators of Teacher Quality,” Daniel Goldhaber and Emily Anthony, *Educational Resources Information Center, U.S. Department of Education*, July 2003.

underway or being developed within the department that either were not examined or are unknown to the committee at the time of this report. As such, the initiatives described below should not serve as a complete list what is occurring at the state level to address the achievement gap.

Schools in Need of Improvement. Public Act 07-3 requires the State Board of Education to designate school districts considered in the greatest need of improvement (as defined under NCLB). The law requires SBE to increase its supervision and support activities within each of those districts, with the overall goal of increased student achievement. This includes: 1) evaluating the strengths and weaknesses of each district, mainly through required operations and instructional audits; 2) working with each district to develop plans for improving low student performance and addressing the learning environment as recommended in the instructional audit; 3) approving certain expenditures for reform; 4) establishing instructional and learning environment benchmarks for the school or district to meet as it progresses toward removal from the list of low achieving schools or districts; and 5) monitoring progress. Twelve districts were initially identified, with three districts since added.

Technical assistance teams developed by SDE have been assigned to work with each district to support local administrators and boards to implement their improvement plans. If a district fails to make acceptable progress toward meeting benchmarks established by the State Board of Education and the adequate yearly progress requirements under NCLB for two consecutive years while designated as a low achieving school district, corrective action may be taken by the state education board, specifically requesting the General Assembly enact legislation authorizing that control of the district be reassigned to the State Board of Education or other authorized entity.

CommPACT Schools. Public Act 07-3 also authorized a new micro-level urban school reform called CommPACT, which involves the community, parents, administrators, children, and teachers collaboratively governing a school. The state appropriated \$480,000 to the Neag School of Education at the University of Connecticut for the development of an implementation plan and the provision of support (e.g., professional development, assessments) to up to twelve CommPACT schools. The Neag School is to report by January 1, 2009, on progress made and services provided, to the General Assembly's committees of cognizance and the commissioners of SDE and the Department of Higher Education. In fall 2008, eight existing schools became CommPACT schools: two each in Waterbury, Bridgeport, and New Haven, and one each in Hartford and New London.

The National Education Association Foundation is contributing an additional \$250,000 to fund a five-year evaluation of the CommPACT initiative by the Neag School, with the explicit aim of learning how to help close the achievement gap. The other partners in the initiative are the two state teachers' unions (American Federation of Teachers–Connecticut and Connecticut Education Association), Connecticut Association of Public School Superintendents, Connecticut Association of Urban Superintendents, and Connecticut Federation of School Administrators. In addition, the Neag School has established a satellite office of the Institute for Urban School Improvement to facilitate implementation of the CommPACT initiative.

To become part of CommPACT, the Neag School must approve the school's application submitted by the local teachers' union and district representatives. An application will only be approved if it documents the support of the school's principal, at least 90 percent of the school's teachers, and the superintendent. A school that is approved for CommPACT becomes autonomous from the district and collaboratively determines its governance, budgeting, and curriculum. The CommPACT model is intended to increase student achievement by: 1) focusing on evidence-based instruction; 2) involving parents, the community, teachers, administrators, and students in schooling; and 3) improving teacher retention by showing teachers their input is needed and valued.

The CommPACT's collaborative model is based on Boston's Pilot Schools project, which has led to higher achievement among students on every possible measure, including test scores and graduation rates (compared to those not attending the Pilot Schools).⁸⁰ Several characteristics distinguish the Pilot Schools from others in the city: 1) accountable through five-year performance evaluations; 2) small size (maximum of 450 students), which facilitates attentiveness to individual students' needs; 3) focus on and belief in every student's ability to achieve; and 4) ability to hire staff that supports the school culture and vision.

Scientific Research-Based Interventions. As discussed earlier in this section, SDE released in 2008 the framework of an instructional reform involving high-quality (i.e., evidence-based and tailored) instruction for each child, early detection of any learning trouble, and the provision of increasingly intensive support to improve the achievement of a student having difficulty. Scientific Research-Based Interventions (SRBI) is Connecticut's version of a federally accepted technique (RTI) to bolster student achievement and, when possible, prevent placement into special education services. SDE has issued guidelines that will mandate districts use SRBI to help determine whether a student should receive special education services, starting the 2009-2010 school year. The department also has issued grants to four districts to expand use of SRBI.

Connecticut Accountability for Learning Initiative. The education department established the Connecticut Accountability for Learning Initiative (CALI) in 2004. The initiative's goal is to provide state support to public school districts with high rates of poverty and high percentages of racial and ethnic minorities through a structured model to assist schools and districts in their improvement efforts to achieve high academic levels.

The CALI initiative provides free professional development support to schools and districts with high levels of poverty (Title I schools, schools identified as in need of improvement, and priority school districts). Support is available on a fee basis for other schools. Training in 18 different modules is available to school districts through CALI. The training modules range from using classroom data for decision-making purposes to learning about certification requirements. CALI is being implemented in conjunction with the department's SRBI effort.

⁸⁰ "Strong Results, High Demand: A Four-Year Study of Boston's Public High Schools," Rosann Tung and Monique Ouimette, Center for Collaborative Education. Accessed on December 1, 2008 at: http://www.ccebos.org/Pilot_School_Study_11.07.pdf.

Summary

No direct link between Connecticut's teacher certification requirements and the achievement gap experienced in school districts in the state could be made, based on research presented to the committee. The committee believes, however, if a key goal of the education department – within the state's broader educational policy framework – is to make sure high quality teachers provide classroom instruction to public school students throughout the state so all students achieve at their highest academic levels, then it is imperative that the department continually monitor whether the state's certification requirements – both in terms of content and implementation – are supporting this goal.

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Customer Service Surveys (Methodologies)

Educators

A randomly-selected group of educators who received a new or renewed certificate during July 2008 was surveyed for this study. The month of July was chosen for several reasons: 1) SDE considers July one of its busiest months for certification purposes, thus broadening the potential pool of educators to survey; 2) educators' experiences with the certification unit were recent; 3) selecting a single month helped keep the survey population manageable for distribution and data analysis purposes; and 4) mailing address information for this group was current, thereby increasing the chances of educators actually receiving, and returning, the survey. A total of just over 3,000 educators received or renewed their state certification in July 2008.

Half of the total educators certified during July 2008 were selected to receive the survey. The sample was chosen from a list of educators generated by SDE organized according to: 1) week in which certification was issued; and 2) within that week, by Social Security number in numerical order. Every other name on the list was designated to receive a survey. Since Social Security numbers are considered a randomly generated identifier (other than the first three digits, which correspond to location – a problem nullified by ordering the numbers), choosing every other name on the list resulted in a randomized sample for the survey.

The survey was mailed to educators' homes initially in mid-September with additional mailings to those educators whose surveys were returned unopened with forwarding addresses through mid-October. Educators had a late September date to return their surveys, although responses were accepted for an additional month. Addresses were acquired from SDE, which keeps the educators' addresses on file for certification purposes.

The survey was accompanied by an explanatory cover letter from the PRI director, and a self-addressed, stamped envelope for the survey's return. There were no identifying marks on the surveys or return envelopes; the surveys were completely anonymous. No pre-mailing notice was distributed; however, post-mailing reminders were sent to each educator. A postcard format was used, which requested the educators return their surveys.

A total of 1,521 surveys were sent to educators, in addition to the postcard reminders. Of those, 428 completed surveys were returned. The overall response rate for the survey was 28 percent – which exceeds the 25 percent benchmark that is generally considered a good response rate on which to base results and analysis for a mail survey of this type. This response rate threshold was independently offered by several academics at the University of Connecticut and professionals within SDE last year during the committee's study of the BEST program, and this benchmark was used as part of the methodologies for the two surveys conducted as part of the BEST report.

General descriptive information of respondents. Table A-1 provides a summary of basic information about the educators who returned the survey.

Table A-1. General Descriptive Information – Educators’ Survey Respondents					
Type of Certificate Received (n=428)					
<i>Initial</i>	<i>Provisional</i>	<i>Professional New</i>	<i>Professional Renewal</i>	<i>Other</i>	<i>Missing</i>
178 (42%)	96 (22%)	47 (11%)	82 (19%)	20 (5%)	5 (1%)
Current Position (n=428)					
<i>Educator in CT</i>	<i>Educator in Another state</i>		<i>Not employed as an educator</i>		<i>Missing</i>
328 (77%)	20 (5%)		78 (18%)		2 (1%)
State of Teacher Preparation Program Completion (n=428)					
Connecticut (66%)			Rhode Island (2%)		
Massachusetts (8%)			Vermont (2%)		
New York (8%)			Other (14%)		
Source: PRI Survey					

Table A-2 shows educators’ overall usage of the various customer services components offered by the certification unit.

Table A-2. Educators’ Usage of Certification Unit Services (n=428)				
Method	1-5 times	6-10 times	More than 10 times	Did not use this method
a) Phone (i.e., spoke with a certification analyst during the Unit’s designated times)	201 (47%)	26 (6%)	9 (2%)	160 (38%)
b) E-mail	166 (39%)	20 (5%)	8 (2%)	181 (42%)
c) Websites	251 (59%)	53 (12%)	36 (9%)	54 (13%)
d) Regular mail (excluding submitting application materials by mail)	170 (40%)	6 (1%)	2 (1%)	182 (43%)
Note: Data for the category “missing” not included. Source: PRI Survey				

Districts

Human resources directors from all of the state’s local and regional school districts, RESCs, and charter schools were surveyed as part of this study. Human resources directors are the personnel likely to have frequent, if not the most, contact with the certification unit from the district level.

A list of names and mailing addresses of the districts’ human resources directors was obtained from the State Department of Education. The survey was mailed to districts initially in late September with additional mailings to the few districts whose surveys were returned unopened with forwarding addresses through October. Districts had an early October date to return their surveys, although responses were accepted for an additional month.

Similar to the survey to educators, the districts’ survey was accompanied by an explanatory cover letter from the PRI director, and a self-addressed, stamped envelope for the survey’s return. There were no identifying marks on the surveys or return envelopes; the surveys were completely anonymous. No pre-mailing notice was distributed; however, post-mailing reminders were sent to each district. A postcard format was used, which requested the educators return their surveys if they had not already done so, and is provided as part of this appendix. A total of 170 surveys were distributed. Of the surveys distributed, 116 completed surveys were returned. The overall response rate for the survey was 68 percent.

General descriptive information of respondents. Table A-3 provides a summary of basic descriptive information about the districts returning the survey.

Table A-3. General Descriptive Information – Districts’ Survey Respondents	
Type of District (n=116)	
Public	107 (92%)
Charter	5 (4%)
RESC	3 (3%)
Other (i.e., Technical)	1 (1%)
District Enrollment (n=116)	
500 or less	13 (11%)
501-1,000	11 (9%)
1,001-5,000	67 (58%)
5,001-10,000	18 (16%)
More than 10,000	6 (5%)
Missing	1 (1%)
Source: PRI Survey	

Table A-4 provides districts' overall usage of the various customer services components offered by the certification unit.

Table A-4. Educators' Usage of Certification Unit Services (n=428)				
Method	1-5 times	6-10 times	More than 10 times	Did not use this method
a) Phone (i.e., spoke with a certification analyst during the Unit's designated times)	18 (16%)	15 (13%)	77 (66%)	4 (3%)
b) E-mail	42 (36%)	27 (23%)	29 (25%)	14 (12%)
c) Websites	16 (14%)	19 (16%)	66 (57%)	6 (5%)
d) Regular mail (excluding submitting application materials by mail)	35 (30%)	9 (8%)	13 (11%)	45 (39%)
Note: Data for the category "missing" not included. Source: PRI Survey				

**LEGISLATIVE PROGRAM REVIEW COMMITTEE
SURVEY OF CONNECTICUT EDUCATORS**

GENERAL

1. What certificate did you most recently receive from the Connecticut State Department of Education (SDE)?
 a) Initial b) Provisional c) Professional (new) c) Professional (renewal) d) Other: _____
2. What is your current position / how are you employed?
 a) Educator in Connecticut b) Educator in another state c) Not employed as an educator
3. In what state did you complete your teacher preparation program? _____

CERTIFICATION UNIT: CUSTOMER SERVICE

Note: Please answer Questions 4-11 based on any contact you have had with the State Department of Education's Certification Unit WITHIN THE PAST YEAR -- including the main educator certification website: <http://www.ctcert.org> and the Unit's specific site: <http://www.sde.ct.gov/sde/cwp/view.asp?a=2613&Q=321230>. PLEASE MARK ONE ANSWER PER CATEGORY, FOR EACH QUESTION.

4. How often did you use the following methods to obtain information from the Certification Unit?

Method	1-5 times	6-10 times	More than 10 times	Did not use this method
a) Phone (i.e., spoke with a certification analyst during the Unit's designated times)				
b) E-mail				
c) Websites				
d) Regular mail (excluding submitting application materials by mail)				

5. What are your expectations of customer service response times when you contact the Certification Unit by phone and/or e-mail, and were those expectations met over the past year?

Timeliness Expectation (fill in blanks)	Were your timeliness expectations met over the past year?		
a) Ideally, if I call the Unit during the designated calling hours, I expect to speak with a person knowledgeable about certification within _____ minutes	Yes	No	Did not call the unit
b) Ideally, if I e-mail the Unit, I expect to receive a response within _____ days	Yes	No	Did not email the unit

6. How thorough and consistent was the information you received from the Certification Unit when you contacted the Unit in the following ways?

Method	Both Thorough and Consistent	Thorough but Not Consistent	Consistent but Not Thorough	Neither	Did not use service
a) Phone (i.e., spoke with a certific. analyst during the Unit's designated times)					
b) E-mail					
c) Websites					
d) Regular mail					

PLEASE COMPLETE REVERSE SIDE →

7. Please rate your experience with the Certification Unit's two certification websites over the past year in the following areas, using the scale: **E = Excellent G = Good F = Fair P = Poor DNU = Did not use website**

Website	Ease of navigation	Accuracy of information	Overall usefulness
a) http://www.ctcert.org			
b) http://www.sde.ct.gov/sde/cwp/view.asp?a=2613&Q=321230			

8. Based on your answers to Questions 4-7 above, please indicate your *overall satisfaction* with the service you received from the SDE Certification Unit in the following areas:

Service	Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied	Did not use service
a) Phone					
b) E-mail					
c) Websites					
d) Regular mail					

9. If you were to choose between the Certification Unit continuing its live phone service staffed by certification analysts OR moving the staff resources currently used to answer phones to processing applications and responding to e-mail, which would you choose?
 a) Keep live phone service b) Move staff resources to processing applications and responding to e-mail
10. How would you rate the Certification Unit's timeliness in processing your most recent certification application?
 a) Very Timely b) Timely c) Somewhat Timely d) Not Timely

CONTINUING EDUCATION

11. How much of your continuing education did you take within your own district over the past three years?
 a) All b) Most c) Some d) None
12. Does your school district offer at least 18 hours of continuing education units (CEUs) per year for educators, as required?
 a) Yes b) No c) Not sure
13. Do you think your school district provides adequate record-keeping of your CEUs? a) Yes b) No
14. Over the past three years, how often has the content of your district's continuing education courses met your professional development needs? a) Always b) Frequently c) Sometimes d) Never
15. **IF** you completed any continuing education provided by your district within the past three years, did it improve your teaching? a) Yes b) No
16. **IF** you completed any continuing education outside of your district within the past three years, did it improve your teaching? a) Yes b) No
17. In what areas would you like to see more continuing education offered to improve your teaching? (circle all that apply)
- a) Classroom management c) Teaching diverse learners e) Using data to improve student learning (including assessing students)
- b) Reading instruction d) Technology in the classroom f) Other: _____

THANK YOU FOR YOUR TIME. PLEASE RETURN YOUR COMPLETED SURVEY BY SEPTEMBER 26, 2008.

**LEGISLATIVE PROGRAM REVIEW COMMITTEE
SURVEY OF CONNECTICUT SCHOOL DISTRICTS**

GENERAL

1. What category best describes your type of school district?
 a) Public b) Charter c) Technical d) RESC e) Other _____
2. What is the current student enrollment of your school district?
 a) 500 or less b) 501-1,000 c) 1,001-5,000 d) 5,001-10,000 e) more than 10,000

CERTIFICATION UNIT: CUSTOMER SERVICE

Note: Please answer Questions 3-7 based on any contact you have had with the State Department of Education's Certification Unit **WITHIN THE PAST YEAR** -- including the main educator certification website: <http://www.ctcert.org> and the Unit's specific site: <http://www.sde.ct.gov/sde/cwp/view.asp?a=2613&Q=321230>. PLEASE MARK ONE ANSWER PER CATEGORY, FOR EACH QUESTION.

3. How often did you use the following methods to obtain information from the Certification Unit?

Method	1-5 times	6-10 times	More than 10 times	Did not use this service
a) Phone*				
b) E-mail				
c) Websites				
d) Regular mail (excluding submitting application materials by mail)				

* "Phone" means the staffed phone line specifically designated for use by school districts.

4. What are your expectations of customer service response times when you contact the Certification Unit by phone via the direct line for school districts and/or e-mail, and were those expectations met over the past year?

Timeliness Expectation (fill in blanks)	Were your timeliness expectations met over the past year?		
a) Ideally, if I call the Unit during the designated calling hours, I expect to speak with a person knowledgeable about certification within _____ minutes	Yes	No	Did not call the unit
b) Ideally, if I e-mail the Certification Unit, I expect to receive a response within _____ days	Yes	No	Did not e-mail the unit

5. How thorough and consistent was the information you received from the Certification Unit when you contacted the Unit using the following methods?

Method	Both Thorough and Consistent	Thorough but Not Consistent	Consistent but Not Thorough	Neither
a) Phone*				
b) E-mail				
c) Websites				
d) Regular mail				

* "Phone" means the staffed phone line specifically designated for use by school districts.

6. Please rate your experience with the Certification Unit's two educator certification websites over the past year in the following areas, using the scale: **E = Excellent G = Good F = Fair P = Poor DNU = Did not use website**

Website	Ease of navigation	Accuracy of information	Overall usefulness
a) http://www.ctcert.org			
b) http://www.sde.ct.gov/sde/cwp/view.asp?a=2613&Q=321230			

7. Based on your answers to Questions 3-6 above, what is your *overall* satisfaction level with the customer service you received from the SDE Certification Unit in the following areas:

Service	Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied	Did not use this service
a) Phone*					
b) E-mail					
c) Websites					
d) Regular mail					
* "Phone" means the staffed phone line specifically designated for use by school districts.					

8. If you were to choose between the Certification Unit continuing its live phone service to districts staffed by a certification analyst OR moving the staff resources currently used to answer the phone to processing applications and responding to e-mail, which would you choose?

- a) Keep live phone service
- b) Move staff resources to processing applications and responding to e-mail

COMPLIANCE WITH STATE CERTIFICATION REQUIREMENTS

9. For the 2007-08 school year, did your district receive a report(s) from SDE indicating one or more teachers was not properly certified based on the assignment code indicated in the Staff File information (ED-163) sent to SDE by your district? a) Yes b) No (Skip to Q.13) c) Not sure (Skip to Q.13)

10. If "Yes" to Q.9, has the situation(s) since been resolved? a) Yes b) Some situations have been c) No (Skip to Q.13) d) Not sure (Skip to Q.13)

11. If "Yes" or "Some situations have been" to Q.10, when was the situation(s) generally resolved?
 a) Immediately after receipt of the letter from SDE
 b) Within 2 months of receipt of the letter from SDE
 c) More than 2 months after receipt of the letter from SDE but before the end of the school year
 d) Between the end of the 2007-08 school year and now
 e) Not sure because SDE has not contacted the district since the end of the 2007-08 school year

12. If "Yes" to Q.10, generally how was the situation(s) resolved?
 a) Staff File information was incorrect and later corrected
 b) SDE certification information was not correct and later corrected
 c) District removed teacher(s) from the unauthorized assignment
 d) Teacher(s) attained proper endorsement, permit, or authorization
 e) Other _____

CONTINUING EDUCATION

13. How does your school district assess the needs of educators when the district is deciding what continuing education to offer in a given year?

- a) The district's central office conducts an annual survey of educators to formally assess their continuing education goals and objectives
- b) The district's school principals provide suggestions to the central office based on the needs of their schools' educators as identified by the principals
- c) The teachers union leader provides suggestions to the central office based on an annual survey of the district's educators
- d) The teachers union leader provides suggestions based on informal input from teachers
- e) Educators submit their suggestions for continuing education courses directly to the district's central office on an informal basis
- f) Other _____

14. Does your district use an automated system to manage educators' continuing education information (e.g., ProTraxx)?

- a) Yes
- b) No
- c) Not sure

MISCELLANEOUS

15. When does your district generally do most of its hiring for the next school year?

- a) January, February, March
- b) April, May, June
- c) July, August, September
- d) October, November, December

16. Does your district extend hiring offers to prospective educators not yet certified by the Connecticut State Department of Education but who appear to meet all the requirements for certification?

- a) Yes (Skip to Q. 18)
- b) No
- c) Not sure (Skip to Q. 18)

17. If "No" to Q 16, why not?

- a) The district hires prospective teachers only after they have a certificate from the State Department of Education
- b) Sufficient numbers of qualified candidates who are already certified usually apply
- c) Other: _____

18. In general, how would your district handle situations of prospective educators hired by the district who have not received their Connecticut certification by the start of the school year?

- a) Situation has never occurred in my school district
- b) Teacher candidate is designated as a substitute or a long-term substitute
- c) District receives approval for a durational shortage area permit for the teacher candidate
- d) Candidate begins teaching with the understanding that the certification is pending at the State Department of Education
- e) Other: _____

19. Are you the person responsible for submitting the Staff File information (Form ED-163) to the State Department of Education? a) Yes b) No

20. If "No" to Question 19, what is the job title of the person responsible for submitting the Staff File information?

21. How long has the person submitting the Staff File information (including you) been responsible for this function?

- a) Fall 2008 will be the first year
- b) 1-5 years
- c) More than 5 years

**THANK YOU FOR YOUR TIME. PLEASE SUBMIT YOUR COMPLETED SURVEY BY
OCTOBER 3, 2008**

Dear Educator,

10/1/08

You were recently sent a survey from the Legislative Program Review Committee regarding your thoughts on the State Department of Education's certification unit. If you already returned your survey, thank you very much and please disregard this notice. If you have not submitted your survey, **please return your completed survey today**. Your feedback is very important to us.

If you never received a survey or need another one, please call us at (860) 240-0300 and we'll be happy to send you a new copy.

Again, thank you for your time and effort.

The staff of the Legislative Program Review Committee

State Capitol, Suite 506 * Hartford, CT 06106
(fax: 860-240-0327)

Dear Human Resources Director,

10/10/08

You were recently sent a survey from the Legislative Program Review Committee regarding your thoughts on the State Department of Education's certification unit. If you already returned your survey, thank you very much and please disregard this notice. If you have not submitted your survey, **please return your completed survey today**. Your feedback is very important to us.

If you never received a survey or need another one, please call us at (860) 240-0300 and we'll be happy to send you a new copy.

Again, thank you for your time and effort.

The staff of the Legislative Program Review Committee

State Capitol, Suite 506 * Hartford, CT 06106
(fax: 860-240-0327)

Public Safety and Certification

The certification unit has a process to thoroughly review and evaluate the applications of educators who have applied for certification but have been convicted of a crime and/or dismissed for cause, the key statutory reasons for which a certification application may be denied. The department also has a staff person to investigate requests for educator revocation, made to the Commissioner of Education. See the study's briefing report for more information on these processes. Recent data on denial and revocation investigations and processes is presented below.

Table B-1. Reviews of Educator Applicants with Conviction or Misconduct Problem: July 2006 through August 2008	
<i>Outcome</i>	<i>Number of Applicants</i>
Reviewed and certification issued	266
Misconduct problem	75
Conviction	191
Reviewed and certification denied	7
Misconduct problem	5
Automatic conviction offense	1
Combination misconduct and conviction	1
Reviewed and decision pending	5
<i>Total reviewed</i>	<i>273</i>
Appeal to department review panel requested by applicant	5
Department review panel upheld	5
Of those who appealed, eligible for SDE review (decision currently pending)	1
Source of data: SDE	

Table B-2. Certification Revocations: School Years 2006-07 and 2007-08	
<i>Outcome</i>	<i>Number</i>
Revocation requests investigations completed	10
Request dismissed: lack of cause or detail	1
Investigation and report completed: Commissioner evaluated and determined course of action	9
Finding of probable cause for revocation	0
Finding of no probable cause	9
Automatic revocation for conviction of certain offenses	5
Requested review (received conditional reinstatement)	1
Voluntary certification surrender due to court order (part of negotiated plea)	1
Source of data: SDE	

Appendix C

District Reference Groups (DRGs)

DRG A: Darien, Easton, New Canaan, Redding, Regional District 9, Ridgefield, Weston, Westport, Wilton
DRG B: Avon, Brookfield, Cheshire, Fairfield, Farmington, Glastonbury, Granby, Greenwich, Guilford, Madison, Monroe, New Fairfield, Newtown, Orange, Regional District 5, Regional District 15, Simsbury, South Windsor, Trumbull, West Hartford, Woodbridge
DRG C: Andover, Barkhamsted, Bethany, Bolton, Canton, Columbia, Cornwall, Ellington, Essex, Hebron, Mansfield, Marlborough, New Hartford, Oxford, Pomfret, Regional District 4, Regional District 7, Regional District 8, Regional District 10, Regional District 12, Regional District 13, Regional District 14, Regional District 17, Regional District 18, Regional District 19, Salem, Sherman, Somers, Suffield, Tolland
DRG D: Berlin, Bethel, Branford, Clinton, Colchester, Cromwell, East Granby, East Hampton, East Lyme, Ledyard, Milford, Newington, New Milford, North Haven, Old Saybrook, Rocky Hill, Shelton, Southington, Stonington, Wallingford, Waterford, Watertown, Wethersfield, Windsor
DRG E: Ashford, Bozrah, Brooklyn, Canaan, Chaplin, Chester, Colebrook, Coventry, Deep River, Eastford, East Haddam, Franklin, Hampton, Hartland, Kent, Lebanon, Lisbon, Litchfield, Norfolk, North Branford, North Stonington, Portland, Preston, Regional District 1, Regional District 6, Regional District 16, Salisbury, Scotland, Sharon, Thomaston, Union, Westbrook, Willington, Woodstock, Woodstock Academy
DRG F: Canterbury, East Windsor, Enfield, Griswold, Montville, North Canaan, Plainville, Plymouth, Regional District 11, Seymour, Sprague, Stafford, Sterling, Thompson, Voluntown, Windsor Locks, Wolcott
DRG G: Bloomfield, Bristol, East Haven, Gilbert Academy, Groton, Hamden, Killingly, Manchester, Middletown, Naugatuck, Norwich Free Academy, Plainfield, Putnam, Stratford, Torrington, Vernon, Winchester
DRG H: Ansonia, Danbury, Derby, East Hartford, Meriden, Norwalk, Norwich, Stamford, West Haven
DRG I: Bridgeport, Hartford, New Britain, New Haven, New London, Waterbury, Windham

Source: "Connecticut's District Reference Groups (DRGs), 2005-06 to Date," Connecticut State Department of Education, <http://www.csde.state.ct.us/public/cedar/edfacts/drags.htm>

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Appendix D

Certification in the Northeast

This appendix describes certification requirements in the following Northeastern states: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont. The requirements are presented in two formats: an overview of requirements by level of certification in Table D-1, to allow for easy comparison across states; and overviews of certification requirements in each state in Tables D-2 through D-4, to provide for simple viewing of a state’s requirements. Information was gathered by conversations with certification directors and staff in all states except Rhode Island (which was unresponsive to several requests) and research on the states’ certification websites.

Table D-1. Certification Requirements Across the Northeast	
<i>Level I</i>	All
<i>Special coursework</i>	Health or biology (passing score on exam in areas is accepted in lieu of coursework): NJ Special education: CT, ME, MA (only early childhood ed. and elem. ed.), NY, RI, VT U.S. history: CT None: NH
<i>Assessment</i>	Praxis I: CT, ME, MA, NH, NJ, VT Praxis II: CT, ME, NH (some areas), NJ, RI, VT State-specific test: MA (content, and communications and literacy), NY (content, liberal arts and sciences, and teaching skills)
<i>Fee</i>	\$50 if completed preparation at an in-state, approved program, \$100 if completed preparation at out-of-state program (including in NIA state), or in-state but not approved; and \$95 for fingerprinting: NY \$100: CT, ME, MA, RI (plus \$25 if evaluation of coursework is necessary) Additional fee per endorsement: ME (\$35), MA (\$25), RI (\$100) \$130: NH Additional fee per endorsement: NH (\$20) \$160: VT \$170, plus \$20 for each endorsement (including first) requiring Praxis II: NJ
<i>Valid</i>	Two years: ME, NJ Three years: CT, NH, VT Five years: MA, NY, RI
<i>Renewable</i>	No: CT No, but one-year extension available: NY (either has not taught under certificate for five years, or if has taught and completed 24 semester hours of graduate credit) Yes, twice; \$70 each time Yes, if not taught under: ME, NH (but must have completed 75 hrs. continuing education), VT Yes, if not finished professional development plan: ME, MA (once only)

	Yes, unlimited number of times (is highest-level certificate): RI
<i>Level II</i>	All except Rhode Island
<i>Education</i>	None: CT (but further education is required for mandatory move to Level III), ME (but further education is required for optional move to Level III), NJ, VT Master's degree: NY Master's degree or other options (12 credits if already have master's; state-approved program; or National Board certification): MA Continuing education: NH
<i>Experience (Minimum)</i>	One year: CT, NJ Two years: ME, VT Three years: MA, NH, NY
<i>Assessment</i>	CT (BEST portfolio) None: ME, MA (in statute as option in lieu of education, but has not been developed), NH, NJ (optional completion of district induction program), NY, VT
<i>Fee</i>	\$0: NJ (unless coming from another state with experience and therefore enter at provisional level; then, fee is same as for Level I certificate) \$50 if completed preparation at an in-state, approved program, \$100 if completed preparation at out-of-state program (including in NIA state), or in-state but not approved: NY \$100: ME, MA (plus \$25 per additional endorsement) \$130: NH (plus \$20 per additional endorsement) \$200: CT \$320: VT
<i>Valid</i>	Three years: NH Five years: ME, MA, NJ, NY Seven years: VT Eight years: CT
<i>Renewable</i>	No: CT Yes, for unlimited number of times: ME, MA, NH, NY, VT
<i>Level III</i>	Mandatory: CT Optional: ME (no one has attained since introduced in 1998), NH None: MA, NY, RI, VT
<i>Education</i>	30 hours of credit: CT Master's degree: NH None: ME
<i>Experience (Minimum)</i>	Three years under Level II: CT, ME Four years under Level II: NH
<i>Assessment</i>	None: CT Through 2008 - completion of professional development plan; starting 2009 – National Board certification or meeting National Board standards: ME Several components: Written exercises, in-classroom observations by state, and either National Board certification or evaluations by range of people: NH
<i>Fee</i>	\$100: ME \$250 if opt for National Board certification; \$800 if not: NH \$300: CT
<i>Valid</i>	Three years: NH Five years: CT, ME

<i>Renewable</i>	Yes, for unlimited number of times: CT, ME, NH
<i>Highest-level renewal fee</i>	No: CT, NJ (except for non-citizens, who pay \$95), NY Yes: ME (\$100), MA (\$100 plus \$25 for each additional endorsement), NH (\$130 plus \$20 for each additional endorsement), RI (\$100 for each endorsement), VT (\$280)
<i>Continuing Ed. (class time)</i>	90 hours over five years, or <u>18</u> hours per year: CT, ME 135 hours over seven years, or about <u>19.28</u> hours per year: VT (at least one-third in content area) 100 hours over five years, or <u>20</u> hours per year: NJ 75 hours over three years, or <u>25</u> hours per year: NH (30 in content area, 45 in areas furthering understanding of teaching standards) 150 hours over five years, or <u>30</u> hours per year: MA (90 hours in content, 30 in content or content-related pedagogy, 30 in any area) 175 hours over five years, or <u>35</u> hours per year: NY (new requirement) (RI: Information not available)
<i>Reciprocity</i>	NASDTEC Interstate Agreement: All Graduated from an NCATE-accredited program: Massachusetts

Table D-2. Certification Requirements in Connecticut, Maine, and Massachusetts

		Connecticut		Maine		Massachusetts	
Level I		Initial	Provisional	Provisional	Initial	Initial	Initial
Special coursework		Special ed. and U.S. history courses (one each)	Special ed.	Special ed.	Special ed. for ECE, el. ed., and moderate special ed. teachers	Special ed. for ECE, el. ed., and moderate special ed. teachers	Special ed. for ECE, el. ed., and moderate special ed. teachers
Assessment		Praxis I and II	Praxis I and Praxis II	Praxis I and Praxis II	Praxis I and state-specific test (content, and Communications & Literacy; developed by Pearson)	Praxis I and state-specific test (content, and Communications & Literacy; developed by Pearson)	Praxis I and state-specific test (content, and Communications & Literacy; developed by Pearson)
Fee		\$100	\$100, with added \$35 for each endorsement beyond the first (plus \$55 for criminal check)	\$100, with added \$35 for each endorsement beyond the first (plus \$55 for criminal check)	\$100, plus \$25 for each additional endorsement area	\$100, plus \$25 for each additional endorsement area	\$100, plus \$25 for each additional endorsement area
Valid		Three years	Two years	Two years	Five years	Five years	Five years
Renewable		No	Yes, if have not taught under it or if local certification committee recommends extension because the teacher's professional development plan has not been completed	Yes, if have not taught under it or if local certification committee recommends extension because the teacher's professional development plan has not been completed	Yes, once; must submit that has been employed and a plan for meeting the education requirement of professional certificate; \$25 to renew	Yes, once; must submit that has been employed and a plan for meeting the education requirement of professional certificate; \$25 to renew	Yes, once; must submit that has been employed and a plan for meeting the education requirement of professional certificate; \$25 to renew
Level II		Provisional	Professional	Professional	Professional	Professional	Professional
Education		No difference	No difference	No difference	One of following: 1) If already holds degree above bachelor's, additional graduate-level credits (9-12) in field or 12-credit state-approved program for the professional license (with 9 credits in content area) 2) If does not, then master's degree, either in field or in ed. with at least 12 credit hours in field 3) Approved state-approved program for the professional license of 50 hrs., content-based 4) National Board certification 5) Pass state performance assessment, when available (currently is not)	One of following: 1) If already holds degree above bachelor's, additional graduate-level credits (9-12) in field or 12-credit state-approved program for the professional license (with 9 credits in content area) 2) If does not, then master's degree, either in field or in ed. with at least 12 credit hours in field 3) Approved state-approved program for the professional license of 50 hrs., content-based 4) National Board certification 5) Pass state performance assessment, when available (currently is not)	One of following: 1) If already holds degree above bachelor's, additional graduate-level credits (9-12) in field or 12-credit state-approved program for the professional license (with 9 credits in content area) 2) If does not, then master's degree, either in field or in ed. with at least 12 credit hours in field 3) Approved state-approved program for the professional license of 50 hrs., content-based 4) National Board certification 5) Pass state performance assessment, when available (currently is not)
Experience		At least one year under Level I certificate (1-3 years)	At least two years under Level I certificate (2 years)	At least two years under Level I certificate (2 years)	At least three years under Level I certificate (3-10 years), including district's attestation that mentoring program was completed in year one (as were 50 additional hours of mentoring)	At least three years under Level I certificate (3-10 years), including district's attestation that mentoring program was completed in year one (as were 50 additional hours of mentoring)	At least three years under Level I certificate (3-10 years), including district's attestation that mentoring program was completed in year one (as were 50 additional hours of mentoring)
Assessment		Complete beginning teacher program (BEST)	None	None	None	None	None

	Connecticut	Maine	Massachusetts
Fee	\$200	\$100 (regardless of number of endorsements)	\$100, plus \$25 for each additional endorsement area
Valid	Eight years	Five years	Five years
Renewable	No	Yes, unlimited (same fee)	Yes, unlimited (same fee)
Level III	Professional	Master (optional)	None
Education	30 credits beyond bachelor's degree	None required	---
Experience	3-8 years under Level II certificate (in total, 5-11 years)	5 years teaching in Maine (regardless of certificate level)	---
Assessment	None	Through 2008: Completed a professional development plan determined by local certification committee. Starting 2009: Either attained National Board Certification or met standards similar to those required by National Board Certification process	---
Fee	\$300	\$100 (regardless of number of endorsements)	---
Valid	Five years	Five years	---
Renewable	Yes, unlimited	Yes, unlimited	---
Highest-level renewal fee	No	Yes, \$100	Yes, \$100 plus \$25 for each additional endorsement
Continuing Ed. (class time)	90 clock hours over 5 years	90 clock hours over 5 years	150 clock hours (or equivalent) over 5 years (90 hours in content area, 30 hours in either content or content-related pedagogy, and 30 in any area; at least 10 hours in any topic to get credit for that topic)
Reciprocity	NIA	NIA	NIA and NCATE

Note:

Massachusetts: The state also has preliminary license. To earn a preliminary license, one must have a bachelor's degree, passed the state test (both communication and content), and have completed certain coursework if the field will be early childhood education, elementary education, or special education. This license is valid for five years and is not renewable, so during that time, the teacher must complete an approved teacher preparation program in order to move up to an initial license. Preparation programs are offered by higher education institutes and by seven districts approved by the department. Any district can go through the application process.

Table D-3. Certification Requirements in New Hampshire, New Jersey, and New York			
	New Hampshire		New York
Level I	Beginning Educator	Provisional	Initial
Special coursework	None	Either a biology or health course of at least one credit, or passing an exam in physiology and hygiene	Special education coursework
Assessment	Praxis I and, for most areas, Praxis II (both requirements waived if have 7 years' experience under a Level I certificate in another state; Praxis I and, if in subject, Praxis II waived if have master's degree)	Praxis I and II, and examination in physiology and hygiene	New York State Teacher Certification Examination (Liberal Arts & Sciences, Assessment of Teaching Skills -Written, and Content Specialty Test)
Fee	\$130; \$20 for each endorsement beyond the first	\$170 plus \$20 for each endorsement requiring Praxis II assessment (including the first)	\$50 if attended a NY-approved teacher preparation program, or \$100 if attended any other program (including in an NIA state); and \$95 for fingerprinting
Valid	Three years	Two years	Five years
Renewable	Yes, if have not been employed for three years under the certificate, but must have completed 75 clock hours of continuing education (with at least 30 hours in each endorsement area)	Yes, twice, for \$70 each time	No, but one-year extension possible if haven't taught for three years, or if has taught and has 24 semester hours of graduate study but could not complete education requirement for professional certificate, due to personal hardship. \$50 fee.
Level II	Experienced Educator	Standard	Professional
Education	Continuing education, as described below: monitored and administered by district	No additional requirements	Master's degree fitting one of the following categories: 1. Leading to a teaching certificate (if did not complete a preparation program) 2. In endorsement area, or related area 3. If not in endorsement area, or related area, must include at least 12 semester hours in endorsement area

	<i>New Hampshire</i>	<i>New Jersey</i>	<i>New York</i>
Experience	Either three years under a beginning educator certificate, or clinical experience of one year as part of a completed approved graduate program	One year	Three years
Assessment	None	Optional: Completion of a district/school induction program (or, graduation from approved TPP and one year of full-time teaching under the provisional certificate)	None
Fee	\$130; \$20 for each endorsement beyond the first	None (if person from another state is entering at Level II, will have to pay Level I fee)	\$50 if teacher has met education requirement through a master's degree at NY-approved program; \$100 if met in another way
Valid	Three years	Five years	Five years
Renewable	Yes, unlimited	Yes, unlimited	Yes, unlimited
Level III	Master Teacher (has not been sought in the 5-7 years it has been an option)	None	None
Education	Master's degree	---	---
Experience	Seven years full-time of the last ten	---	---
Assessment	1. Four written tasks and exercises evaluated by education department 2. Three in-person classroom observations by education department 3. If not National Board-certified, also: evaluations by students, parents, peers, and administrators; and education department considers whether teacher meets professional standards	---	---
Fee	\$250 if National Board-certified; \$800 if not	---	---
Valid	Three years	---	---
Renewable	Yes; same renewal fee as other certificates	---	---
Highest-level renewal fee?	Yes	No	No

Notes:

New Hampshire: Continuing education requirements must be met to renew a certificate, regardless of whether the educator has been employed by a district over the last three-year cycle. If someone is employed, the district is supposed to submit evidence that the teacher completed the continuing education; if not, the teacher is supposed to do it (along with a plan, before carrying out the continuing education). The master teacher option was first created by the legislature effective August 1998, but so far has never been used. The Bureau of Credentialing administrator reported that neither districts nor the state gives teachers any incentive to earn and hold a master certificate that might outweigh the high cost.

New Jersey: The state issues a Certificate of Eligibility with Advanced Standing or, to alternate route graduates, a Certificate of Eligibility or to someone who has not yet accepted an offer of employment. The Certificate is not a teaching license. When an offer has been accepted, and the district has agreed to provide an induction program, the teacher must then apply for a provisional certificate. The certification fee is due when someone applies for a Certificate of Eligibility (with or without Advanced Standing). An alternate route graduate must pay an additional \$100 to defray the cost of completing the alternate route regional training center program.

New York: The certificate structure changed in 2004. The entry-level certificate used to be called a provisional certificate; it is now an initial certificate. The second-level certificate was formerly a lifetime certificate; the educator didn't have to do anything to get it renewed, because there was no renewal. There may have been continuing education requirements imposed on an educator by a district, or educators just took continuing education because they wanted to, but there was no requirement to complete continuing education, to keep certification. The continuing education requirement isn't truly effective until the first person has held a professional certificate for five years after the requirement changed, which will be in 2010. Consequently, the department hasn't yet had to check for the completion of continuing education, in any way.

Table D-4. Certification Requirements in Rhode Island and Vermont		
	<i>Rhode Island</i>	<i>Vermont</i>
Level I	Professional	Level One
Special coursework	Special education	Special education
Education/Continuing Ed. (class time)	Yes, amount unclear. (Website information on amount was conflicting and the department failed to respond to several requests for information.)	None
Assessment	Praxis II	Praxis I and II
Fee	\$100 for each field	\$160
Valid	Five years	Three years
Renewable	Yes	Yes, if have not been employed under certificate for two years (must have completed 45 continuing education clock hours to renew); \$160 to renew
Level II	None	Level Two
Education	---	None
Experience	---	At least two years under Level I certificate (local standards board decides whether teacher may move to Level Two after two years or after three, based on perception of performance)
Assessment	---	None
Fee	---	\$320; \$280 to renew
Valid	---	Seven years
Renewable	---	Yes
Level III	None	None
Education	---	---
Experience	---	---
Assessment	---	---
Fee	---	---
Valid	---	---
Renewable	---	---

	<i>Rhode Island</i>	<i>Vermont</i>
<i>Highest-level renewal fee?</i>	Yes: \$100	Yes: \$280
<i>Continuing Ed. (class time)</i>	See above	135 clock hours (9 credits) over seven years, with at least one-third (3 credits) in the endorsement area. If more than one endorsement: at least 45 hours (3 credits) in each endorsement area.
<i>Reciprocity</i>	NIA	NIA

Notes:

Rhode Island: The state considers its first-level certificate to be the Certificate of Eligibility for Employment (CEE). The CEE is given to someone who meets all the requirements to be a teacher (including Praxis II) but has not yet been hired as one. So, once the teacher is hired, it is necessary to apply for a professional certificate, and that is the only certificate available to hired teachers.

Vermont: To issue a certificate, Vermont requires evidence a prospective teacher either is a resident or has a job offer from an in-state school.

Praxis Panel Standards-Setting Process

The details of the Praxis panel standards-setting process are different for multiple choice and essay tests, but standards-setting for both types of assessments involves training and using the same criteria. The panel's process for setting a multiple choice test standard is described because most of Connecticut's certification tests are in that format.

Training consists primarily of learning the criteria to be used in evaluating the test and working through sample test items. After training, the panel begins the standards-setting process.

1. Individual evaluations are conducted: Each panelist gives two separate evaluations of every test item's "job relevance" and "knowledge estimation," considering both the test question and set of response options. The *job relevance* determination requires the panelist to determine how important the knowledge tested by the question is for the job of a beginning teacher, based on a standardized rating scale ranging from "not important" to "very important." The *knowledge estimation* evaluation entails approximating the percent of "just-sufficient" beginning teachers who would know the answer to the question. Panelists are instructed to exclude from their estimation those beginning teachers who fall well short of sufficiency and those who far exceed it. After working through the test, the panelists estimate the job relevance of the content areas covered by the test questions (i.e., test specifications).

2. Check to ensure state's job relevance test standards are met: Every state using a certification assessment sets the two *job relevance* standards that all such tests must meet in order to be adopted, called decision rules. Connecticut's decision rules are set by SDE and are based on what seems intuitively reasonable. Connecticut's Praxis II decision rules are:

- at least 70 percent of all the test's panelists agree that *each* item is job-relevant; and
- *all* the test's panelists agree that at least 80 percent of *all* the test's items are job-relevant.

There are also borderline validity decision rules that a strong majority of states and state agencies choose to adopt. Connecticut's borderline validity decision rules are 65 percent at the item level, and 70 percent at the test level. As noted in Section IV, Connecticut had the highest decision rules of the 49 states and state agencies that used Praxis II assessments in 2004 (the most recent data available), shown in Table E-1.

Table E-1. Job Relevance Decision Rules Across States for Praxis II (Subject Assessments)		
	<i>Item-Level: Number of States Using Rule Level</i>	<i>Test-Level: Number of States Using Rule Level</i>
<i>Primary Rule</i>		
75-80%	0	12 (CT)
70-74%	9 (CT)	24
65-69%	11	5
60-64%	4	6
55-59%	0	0
51-54%	2	2
<i>Distance of Borderline Rule from Primary Rule*</i>		
None	3	5
5-9% points	16 (CT)	4
10-15% points	19	28 (CT)
16-20% points	10	10
21-25%	0	2
<p>*Generally, states that have higher percentage point distances between the primary rule and borderline rule are those that have higher primary rules. Source of data: ETS, "Job Relevance Decision Rules for Praxis II Subject Assessments," September 30, 2004.</p>		

In addition to test- and item-level job relevance, the panelists' aggregate judgment of the content areas' job relevance is to be considered, but there is no standard that must be met. If the state's decision rules are not met, or if the content areas' job relevance is judged to be lacking, then the test is not adopted.

3. Recommended passing score is determined: The recommended passing score is computed by identifying the questions judged to be *job relevant* and averaging the *knowledge estimation* judgments across panelists. That preliminary score is then adjusted by ETS into a scaled, final score. Specifically, the preliminary score is adjusted upward to account for the 25 percent chance that any test taker did not know the correct answer but guessed it, but also is adjusted downward to lower the chance that a person who should have passed the test, did not. The resulting score is covered into a scaled score that ranges from 100-200 for most tests.

Appendix F

Praxis I and II Passing Rates

Table F-1. Basic Skills Test (Praxis I) Passing Rates: 1994-2008									
<i>Test Area</i>	<i>June 1994 – Dec. 2000</i>			<i>Sept. 2000-Aug. 2005</i>			<i>Sept. 2005-Aug. 2008</i>		
	<i>Initial Pass Rate</i>	<i>Final Pass Rate</i>	<i>N*</i>	<i>Initial Pass Rate</i>	<i>Final Pass Rate</i>	<i>N</i>	<i>Initial Pass Rate</i>	<i>Final Pass Rate</i>	<i>N</i>
Mathematics	77%	85%	16,110	79%	86%	19,829	78%	84%	9,592
Reading	89%	92%	16,198	84%	89%	19,178	82%	86%	9,428
Writing	87%	91%	16,055	88%	92%	18,537	87%	90%	9,101
All Three Components	69%	78%	15,642	72%	83%	17,311	72%	81%	8,437
<p>* “N” is the total number of potential educators who took the test. Source of data: SDE</p>									

Table F-2. Subject Area Test (Praxis II) Passing Rates: 1994-2008

Test Area (# of tests)	June 1994 – Dec. 2000			Sept. 2000–Aug. 2005			Sept. 2005–Aug. 2008		
	Initial Pass Rate	Final Pass Rate	N*	Initial Pass Rate	Final Pass Rate	N	Initial Pass Rate	Final Pass Rate	N
Art (3)	77%	93%	344	73%	88%	590	82%	95%	353
Biology (1)	80%	90%	592	73%	84%	1,045	77%	88%	603
Business Ed. (1)	77%	83%	583	76%	87%	399	78%	88%	187
Chemistry (2)	87%	92%	284	75%	86%	312	69%	80%	189
Earth Science (1)	82%	88%	106	83%	90%	199	70%	80%	114
Elementary Ed. (2)	66%	88%	4,811	75%	91%	7,869	80%	96%	3,531
English Lang. Arts (ELA), 7-12 (2)	75%	86%	1,885	51%	73%	1,772	46%	71%	1,185
General Science (2)	100%	100%	194	40%	64%	546	43%	68%	315
Health Ed. (1)	88%	93%	1,171	66%	81%	696	64%	81%	544
Home Economics (1)	82%	88%	208	81%	88%	137	72%	84%	74
Mathematics, 7-12 (1)**	51%	70%	540	57%	74%	1,568	61%	78%	1,080
Mid. School: ELA (1)	87%	94%	135	80%	88%	317	84%	89%	222
Mid. School: Science (1)	60%	76%	95	56%	72%	290	56%	69%	149
Mid. School: Soc. St. (1)	83%	88%	169	78%	85%	289	82%	85%	176
Mid. School: Math. (1)	72%	80%	127	65%	76%	611	61%	73%	492
Music (2)	55%	84%	399	62%	86%	702	60%	84%	366
Physical Ed. (2)	51%	85%	669	70%	89%	733	75%	92%	497
Physics (2)	84%	91%	97	75%	87%	174	81%	89%	95
Social Studies, 7-12 (1)	77%	91%	1,884	68%	81%	2,128	63%	77%	1,449
Special Ed. (2)	57%	84%	1,805	NA	NA	NA	91%	97%	1,477
Technology Ed. (2)	85%	90%	268	80%	90%	193	71%	85%	115

**“N” is the total number of test-takers.

**The math passing score was lowered in November 2001 by the State Board of Education.

“NA”: The special education test was updated during the timeframe and so no consistent passing rate data were available.

Notes: The dates used were based on available data. SDE had obtained data for June 1994-December 2000, and for September 2000-August 2005, prior to this study; data for the most recent period (September 2005-August 2008) Praxis examinations were requested of SDE by committee staff.

Data on the foreign language tests, which are administered by a different organization (ACTFL – the American Council on Teaching Foreign Languages), were not available. To be eligible for Connecticut certification, foreign language teachers must meet the “intermediate high” standard on both the oral and written portions of the ACTFL test.

Assessments that are no longer required for Connecticut certification are not included.

Source of data: SDE

Appendix G

Connecticut's Praxis Standards

When examining Praxis passing scores across states, it is important to note that each state sets its Praxis standard for every test based on the state's educators' assessments of how important and widely known among beginning teachers is the knowledge on that particular test. This standards-setting process is used because it is legally defensible.

Table G-1. Connecticut's Minimum Praxis Test Scores Compared to National and Regional Minimum Scores						
	<i>CT</i>	<i>Nat'l Median</i>	<i>Nat'l Range</i>	<i>Number of States</i>	<i>Northeastern States (NY and MA do not use)</i>	
<i>Praxis I</i>						
Reading	172	173.5	170-178	26	ME-173 NJ-175	NH-174 VT-177
Writing	171	172	171-175	26	ME-172 NJ-173	NH-172 VT-174
Mathematics	171	172	169-177	26	ME-172 NJ-174	NH-172 VT-175
<i>Praxis II</i>						
Art Making	148	154	146-161	8	VT-148	
Art: Content, Traditions, etc.	130	140	130-145	6	None	
Art: Content Knowledge (CK)	157	156	139-170	31	ME-151	
Biology: CK	152	150	139-157	28	ME-150 VT-151	NH-153
Business Ed.	620	575	480-620	28	None	
Chemistry: CK	151	152	135-160	27	NH-153 VT-160	NJ-152
Chemistry: Content Essays (CE)	140	142.5	140-150	4	NH-153 VT-160	NJ-152
Earth Sci.: CK	157	150	136-158	24	NH-148 VT-158	NJ-153
Early Childhood: CK	156	158	143-169	11	NH-161 RI-169	NJ-159
Ed. of Young Children (EC)	158	166	155-174	15	ME-166 RI-171	
El. ed.: Curriculum, etc.	163	159	151-168	17	None	
El. ed.: CK	148	148	135-156	9	ME-145 NJ-141 VT-148	NH-148 RI-145
English: CK	172	160	142-172	36	ME-160 NJ-162	NH-164 VT-172

	<i>CT</i>	<i>Nat'l Median</i>	<i>Nat'l Range</i>	<i>Number of States</i>	<i>Northeastern States (NY and MA do not use)</i>	
English: CE	160	155	145-160	8	NH-155	VT-160
Family & Consumer Sci.	630	560	500-630	27	ME-570	NJ-550
General Sci.: CK	157	152	143-160	20	NH-147 VT-157	NJ-152
General Sci.: CE	145	140	130-145	6	NH-145	VT-145
Health Ed.	680	620	420-690	21	ME-640	
Math: CK	137	136	116-156	36	NH-127 VT-141	NJ-137
Middle English	164	157	145-165	31	ME-155 NJ-156 VT-154	NH-155 RI-162
Middle Math	158	149	139-163	32	ME-148 NJ-152 VT-161	NH-151 RI-158
Middle Science	162	145	134-162	30	ME-142 RI-154	NJ-145 VT-157
Middle Soc. Studies	160	152	140-165	30	ME-153 NJ-158	NH-153 VT-165
Music: CK	153	151	139-162	31	NJ-153	VT-153
Music: Concepts and Processes	150	145	145-150	9	VT-150	
P.E.: CK	154	149.5	138-158	26	ME-149 VT-147	NJ-148
P.E.: Movement	154	149.5	141-154	8	VT-154	
Physics: CK	141	140	126-149	24	NH-146 VT-140	NJ-141
Physics: CE	135	137.5	135-150	4	NH-140	VT-150
Soc. Studies: CK	162	153.5	143-162	34	ME-157 NJ-157	NH-155 VT-162
Ed. of Exceptional Children: CK (Special ed.)	158	150	136-160	21	ME-157	
Tech. Ed.	640	580	540-640	26	ME-570	NJ-570

Notes:

The count of states includes only those states with a listed minimum score on the source of this information. This excludes 1-2 states per category that require the test but have not yet set a passing score.

“CE” indicates “Content Essay,” and “CK” means “Content Knowledge.” Content knowledge tests generally are multiple-choice.

Source of data: ETS, “The Praxis Series Passing Scores by Test and State.” Accessed March 1, 2008 at:

<http://www.etsliteracy.com/Media/Tests/PRAxis/pdf/09706passingscores.pdf>

Table G-2. Connecticut's Minimum Praxis Test Scores Compared to the National Median Minimum Test Scores

<i>Lower</i>	<i>Same</i>	<i>Higher</i>
Praxis I: Reading Praxis I: Writing* Praxis I: Mathematics Art Making Art: Content, Traditions, etc.* Chemistry: CK Chemistry: CE* Early Childhood: CK Education of Young Children (EC) Physics: CE*	El. Ed.: CK	Art: CK Biology: CK Business Ed.* Earth Science CK El. Ed.: Curriculum, etc. English CK* English CE* Family and Consumer Sci.* General Science: CK General Science: CE* Health Ed. Math: CK Middle English Middle Math Middle Science* Middle Soc. Studies Music: CK Music: Concepts and Processes* P.E.: CK P.E.: Movement* Physics: CK Soc. Studies: CK* Ed. of Exceptional Children: CK (Special Ed.) Tech. Ed.*

*Indicates Connecticut's score was equal to the lowest or highest (whichever is appropriate to the column designation) minimum score nationwide. Note that the comparison does not convey at what absolute level of knowledge Connecticut requires of its teachers; the comparison shows only the level of knowledge Connecticut requires relative to other states.

Note: "CE" means "Content Essay," and "CK" indicates "Content Knowledge." Content knowledge tests are generally multiple-choice.

Source of data: ETS, "The Praxis Series Passing Scores by Test and State." Accessed March 1, 2008, at:

<http://www.etsliteracy.com/Media/Tests/PRAxis/pdf/09706passingscores.pdf>

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Appendix H

**Table H-1. Differences Between Poor and Non-poor Students in Public Schools
4th Grade Reading and Math: NAEP Assessment Scores by State, 2007**

READING			MATH		
Rank	State (includes Dist. of Columbia)	Free/Reduced-Price Lunch Not Eligible - Eligible Difference in Scaled Score	Rank	State (includes Dist. of Columbia)	Free/Reduced-Price Lunch Not Eligible - Eligible Difference in Scaled Score
1	North Dakota	16	1	Wyoming	12
2	Hawaii	18	2	North Dakota	15
3	Wyoming	18	3	West Virginia	15
4	Oklahoma	18	4	New Hampshire	15
5	Delaware	18	5	Oklahoma	16
6	Iowa	19	6	Delaware	16
7	Montana	19	7	Maine	16
8	West Virginia	19	8	Montana	16
9	Maine	19	9	Idaho	16
10	Idaho	19	10	Texas	17
11	Virginia	20	11	Utah	17
12	Utah	20	12	South Dakota	17
13	New Hampshire	21	13	Vermont	17
14	Florida	21	14	Hawaii	17
15	Missouri	21	15	Iowa	18
16	Kansas	22	16	Florida	18
17	South Dakota	22	17	Indiana	18
18	Kentucky	22	18	Kansas	18
19	Indiana	22	19	Louisiana	18
20	Ohio	22	20	Missouri	19
21	Vermont	23	21	Kentucky	19
22	Georgia	24	22	Mississippi	19
23	Texas	24	23	Oregon	20
24	Washington	24	24	New York	20
25	Nebraska	24	25	Tennessee	20
26	North Carolina	25	26	Virginia	20
27	Mississippi	25	27	Arkansas	20
28	New Mexico	25	28	District of Columbia	20
29	Louisiana	25	29	North Carolina	21
30	Nevada	25	30	Washington	21
31	Michigan	26	31	Nevada	21
32	Arkansas	26	32	Nebraska	21
33	Wisconsin	26	33	New Mexico	21
34	South Carolina	27	34	Minnesota	22
35	Tennessee	27	35	Massachusetts	22
36	Minnesota	27	36	Michigan	22
37	Maryland	27	37	Alaska	22
38	Rhode Island	27	38	New Jersey	22
39	New Jersey	27	39	Rhode Island	22
40	Oregon	28	40	Ohio	23
41	Illinois	28	41	South Carolina	23
42	Colorado	28	42	Georgia	23
43	District of Columbia	28	43	Maryland	24
44	New York	28	44	Wisconsin	25
45	Arizona	29	45	California	25
46	Massachusetts	29	46	Alabama	25
47	Alabama	29	47	Arizona	25
48	Alaska	30	48	Colorado	26
49	California	30	49	Illinois	26
50	Pennsylvania	30	50	Pennsylvania	26
51	Connecticut	38	51	Connecticut	29

Source: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2007 Reading and Math Assessments.

**Table H-2. Gaps between Poor and Non-poor Students in Public Schools
8th Grade Reading and Math: NAEP Assessment Scores by State, 2007**

READING			MATH		
Rank	State (includes Dist. of Columbia)	Free/Reduced-Price Lunch Not Eligible - Eligible Difference in Scaled Score	Rank	State (includes Dist. of Columbia)	Free/Reduced-Price Lunch Not Eligible - Eligible Difference in Scaled Score
1	Maine	14	1	North Dakota	15
2	Idaho	14	2	Wyoming	16
3	North Dakota	14	3	District of Columbia	16
4	Hawaii	14	4	Maine	17
5	Wyoming	15	5	Idaho	18
6	New Hampshire	15	6	Hawaii	18
7	Utah	15	7	Vermont	19
8	South Dakota	15	8	South Dakota	19
9	Delaware	16	9	West Virginia	19
10	Oklahoma	16	10	Louisiana	20
11	Montana	17	11	Utah	20
12	West Virginia	17	12	Nevada	20
13	Vermont	17	13	Delaware	20
14	Florida	18	14	New Hampshire	20
15	District of Columbia	18	15	Oklahoma	20
16	Kentucky	19	16	Kentucky	21
17	Virginia	20	17	Iowa	22
18	Missouri	20	18	Tennessee	22
19	Nebraska	20	19	Indiana	22
20	Nevada	20	20	Arkansas	22
21	Louisiana	20	21	Texas	23
22	Minnesota	20	22	Florida	23
23	Maryland	20	23	Montana	23
24	Indiana	21	24	Kansas	23
25	Oregon	21	25	Mississippi	24
26	Iowa	21	26	Oregon	24
27	Washington	21	27	Arizona	24
28	Tennessee	21	28	New Mexico	24
29	Arkansas	22	29	New York	24
30	Kansas	22	30	Missouri	24
31	Pennsylvania	22	31	Ohio	25
32	New Mexico	22	32	Georgia	25
33	Colorado	22	33	South Carolina	25
34	Alabama	22	34	Maryland	25
35	Illinois	23	35	Minnesota	26
36	Georgia	23	36	Washington	26
37	Alaska	23	37	Michigan	26
38	Massachusetts	24	38	California	26
39	Mississippi	24	39	Pennsylvania	26
40	Texas	24	40	Alaska	26
41	Arizona	24	41	Virginia	27
42	Ohio	24	42	Wisconsin	28
43	Michigan	25	43	Nebraska	28
44	California	25	44	North Carolina	28
45	South Carolina	25	45	Rhode Island	28
46	North Carolina	25	46	Colorado	28
47	New York	25	47	Illinois	30
48	Rhode Island	25	48	Alabama	30
49	Wisconsin	26	49	New Jersey	31
50	New Jersey	26	50	Massachusetts	31
51	Connecticut	32	51	Connecticut	36

Source: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2007 Reading and Math Assessments.

**Table H-3. Differences Between Black and White Students in Public Schools
4th Grade Reading and Math: NAEP Assessment Scores by State, 2007**

READING			MATH		
Rank	State (includes Dist. of Columbia)	Race/Ethnicity Black and White Students	Rank	State (includes Dist. of Columbia)	Race/Ethnicity Black and White Students
1	West Virginia	13	1	Hawaii	14
2	New Hampshire	14	2	West Virginia	14
3	Hawaii	15	3	Kentucky	19
4	Arizona	17	4	Delaware	20
5	Oklahoma	19	5	Alaska	20
6	New Mexico	20	6	Louisiana	21
7	Virginia	20	7	Iowa	21
8	Delaware	20	8	Oklahoma	22
9	Kentucky	21	9	Oregon	22
10	Alaska	22	10	Mississippi	22
11	Kansas	22	11	New Mexico	22
12	Nevada	22	12	Maine	22
13	Iowa	22	13	Texas	23
14	Washington	23	14	Virginia	23
15	Colorado	24	15	New Jersey	23
16	Indiana	24	16	Rhode Island	23
17	Florida	24	17	Nevada	23
18	Oregon	25	18	Georgia	24
19	Georgia	25	19	New Hampshire	24
20	Texas	25	20	South Dakota	24
21	New York	26	21	Ohio	25
22	Alabama	26	22	Florida	25
23	South Carolina	26	23	Indiana	25
24	Louisiana	26	24	Alabama	25
25	North Carolina	26	25	Massachusetts	25
26	New Jersey	26	26	Colorado	26
27	Missouri	26	27	New York	26
28	California	27	28	Washington	26
29	Mississippi	27	29	South Carolina	26
30	Ohio	27	30	Kansas	26
31	Maryland	28	31	Pennsylvania	26
32	Illinois	29	32	Tennessee	26
33	Rhode Island	29	33	Missouri	26
34	Michigan	30	34	North Carolina	27
35	Massachusetts	31	35	Arizona	28
36	Arkansas	31	36	Arkansas	28
37	Tennessee	32	37	Michigan	28
38	Minnesota	33	38	Maryland	29
39	Pennsylvania	33	39	California	29
40	Connecticut	34	40	Minnesota	31
41	Nebraska	36	41	Illinois	32
42	Wisconsin	38	42	Connecticut	32
43	District of Columbia	67	43	Nebraska	33
	Idaho	*	44	Wisconsin	38
	Maine	*	45	District of Columbia	54
	Montana	*		Idaho	*
	North Dakota	*		Montana	*
	South Dakota	*		North Dakota	*
	Utah	*		Utah	*
	Vermont	*		Vermont	*
	Wyoming	*		Wyoming	*

*Reporting standards not met. Sample size is insufficient to permit a reliable estimate

Source: U.S. Dept. of Ed., National Ctr. for Education Statistics, National Assessment of Educational Progress (NAEP), 2007 Reading and Math Assessments.

**Table H-4. Differences Between Hispanic and White Students in Public Schools
4th Grade Reading and Math: NAEP Assessment Scores by State, 2007**

READING			MATH		
Rank	State (includes Dist. of Columbia)	Race/Ethnicity Black and White Students	Rank	State (includes Dist. of Columbia)	Race/Ethnicity Black and White Students
1	Louisiana	7	1	Montana	6
2	Montana	10	2	Louisiana	6
3	Missouri	14	3	Missouri	11
4	Florida	14	4	Florida	13
5	Delaware	15	5	Michigan	14
6	Tennessee	16	6	Oklahoma	15
7	Ohio	17	7	Iowa	15
8	Michigan	17	8	Arkansas	15
9	Virginia	17	9	Virginia	15
10	Georgia	18	10	Alaska	15
11	Wyoming	18	11	Indiana	16
12	Indiana	18	12	Delaware	16
13	Iowa	19	13	North Carolina	16
14	South Dakota	19	14	Kentucky	16
15	South Carolina	19	15	Georgia	17
16	New Hampshire	20	16	Texas	17
17	Kansas	20	17	Wyoming	17
18	Texas	21	18	New Hampshire	17
19	Wisconsin	21	19	South Dakota	18
20	Hawaii	22	20	Tennessee	18
21	Alaska	23	21	Maryland	18
22	Washington	23	22	Kansas	18
23	North Carolina	23	23	Ohio	18
24	Idaho	23	24	Pennsylvania	19
25	Maryland	23	25	Hawaii	20
26	New Mexico	23	26	Alabama	20
27	Arkansas	24	27	South Carolina	20
28	New Jersey	24	28	Idaho	21
29	Illinois	24	29	New York	21
30	Oklahoma	25	30	New Mexico	21
31	Utah	26	31	New Jersey	21
32	Arizona	27	32	Wisconsin	21
33	Nevada	27	33	Nevada	21
34	Nebraska	27	34	Rhode Island	22
35	New York	27	35	Washington	23
36	Rhode Island	29	36	Minnesota	23
37	Alabama	30	37	Nebraska	24
38	Colorado	30	38	Utah	24
39	Minnesota	31	39	Oregon	24
40	Massachusetts	32	40	Illinois	25
41	Oregon	32	41	Colorado	25
42	California	32	42	Massachusetts	26
43	Pennsylvania	33	43	Arizona	27
44	Connecticut	35	44	Connecticut	29
45	District of Columbia	52	45	California	29
	Kentucky	*	46	District of Columbia	42
	Maine	*		Maine	*
	Mississippi	*		Mississippi	*
	North Dakota	*		North Dakota	*
	Vermont	*		Vermont	*
	West Virginia	*		West Virginia	*

*Reporting standards not met. Sample size is insufficient to permit a reliable estimate

Source: U.S. Dept. of Ed., National Ctr. for Education Statistics, National Assessment of Educational Progress (NAEP), 2007 Reading and Math Assessments.

**Table H-5. Differences Between Black and White Students in Public Schools
8th Grade Reading and Math: NAEP Assessment Scores by State, 2007**

READING			MATH		
Rank	State (includes Dist. of Columbia)	Race/Ethnicity Black and White Students	Rank	State (includes Dist. of Columbia)	Race/Ethnicity Black and White Students
1	Hawaii	7	1	Oregon	16
2	West Virginia	15	2	New Mexico	21
3	Nevada	15	3	West Virginia	21
4	New Mexico	17	4	Oklahoma	22
5	Kentucky	17	5	Arizona	23
6	Alaska	20	6	Alaska	23
7	Oregon	20	7	Colorado	24
8	Virginia	20	8	Kentucky	25
9	Arizona	21	9	Louisiana	25
10	Colorado	22	10	Nevada	26
11	Oklahoma	22	11	Washington	26
12	Iowa	22	12	Georgia	27
13	Washington	23	13	South Carolina	27
14	Louisiana	23	14	Mississippi	28
15	Delaware	23	15	Virginia	28
16	Florida	24	16	Arkansas	28
17	Pennsylvania	25	17	Tennessee	28
18	Massachusetts	25	18	Kansas	28
19	Georgia	25	19	Texas	29
20	Mississippi	25	20	Delaware	29
21	Alabama	26	21	North Carolina	29
22	Indiana	26	22	Florida	29
23	Texas	26	23	Iowa	31
24	South Carolina	26	24	Indiana	32
25	Kansas	27	25	New York	32
26	Maryland	27	26	Alabama	32
27	Tennessee	27	27	Ohio	33
28	Illinois	27	28	Missouri	34
29	Ohio	27	29	Rhode Island	34
30	Missouri	28	30	California	35
31	Minnesota	28	31	New Jersey	35
32	Nebraska	28	32	Maryland	36
33	Rhode Island	29	33	Pennsylvania	36
34	New York	29	34	Minnesota	37
35	California	29	35	Connecticut	38
36	New Jersey	29	36	Illinois	38
37	North Carolina	29	37	Massachusetts	40
38	Connecticut	30	38	Michigan	41
39	Arkansas	31	39	Wisconsin	45
40	Michigan	31	40	Nebraska	51
41	Wisconsin	38		District of Columbia	*
	District of Columbia	*		Hawaii	*
	Idaho	*		Idaho	*
	Maine	*		Maine	*
	Montana	*		Montana	*
	New Hampshire	*		New Hampshire	*
	North Dakota	*		North Dakota	*
	South Dakota	*		South Dakota	*
	Utah	*		Utah	*
	Vermont	*		Vermont	*
	Wyoming	*		Wyoming	*

*Reporting standards not met. Sample size is insufficient to permit a reliable estimate

Source: U.S. Dept. of Ed., National Ctr. for Education Statistics, National Assessment of Educational Progress (NAEP), 2007 Reading and Math Assessments.

**Table H-6. Differences Between Hispanic and White Students in Public Schools
8th Grade Reading and Math: NAEP Assessment Scores by State, 2007**

READING			MATH		
Rank	State (includes Dist. of Columbia)	Race/Ethnicity Black and White Students	Rank	State (includes Dist. of Columbia)	Race/Ethnicity Black and White Students
1	Alabama	12	1	Hawaii	15
2	Florida	12	2	Ohio	15
3	Indiana	13	3	Wyoming	16
4	Alaska	13	4	Missouri	17
5	Hawaii	13	5	Tennessee	18
6	Ohio	14	6	Florida	18
7	Virginia	14	7	Alaska	20
8	Tennessee	15	8	South Carolina	21
9	Nebraska	16	9	Virginia	21
10	Delaware	17	10	Oklahoma	21
11	Arkansas	18	11	Georgia	22
12	Maryland	18	12	North Carolina	22
13	New Hampshire	18	13	Texas	23
14	Iowa	19	14	Indiana	23
15	New Mexico	20	15	South Dakota	23
16	Illinois	21	16	Idaho	24
17	Wyoming	21	17	Wisconsin	24
18	Georgia	21	18	New Hampshire	24
19	New Jersey	22	19	New Mexico	25
20	Wisconsin	22	20	Nevada	25
21	Missouri	22	21	Arkansas	25
22	Washington	23	22	Illinois	26
23	Texas	24	23	New York	26
24	Utah	24	24	Michigan	26
25	Kansas	24	25	Kansas	26
26	Nevada	24	26	Delaware	27
27	South Carolina	24	27	New Jersey	27
28	North Carolina	24	28	Arizona	27
29	Oklahoma	25	29	Washington	27
30	Idaho	25	30	Iowa	28
31	Colorado	25	31	Oregon	28
32	Oregon	26	32	Maryland	28
33	Michigan	26	33	Minnesota	28
34	California	26	34	Pennsylvania	29
35	Massachusetts	27	35	Alabama	29
36	Minnesota	28	36	Nebraska	29
37	Arizona	28	37	Utah	31
38	Pennsylvania	28	38	California	31
39	New York	29	39	Colorado	32
40	Connecticut	33	40	Rhode Island	33
41	Rhode Island	34	41	Massachusetts	35
	District of Columbia	*	42	Connecticut	39
	Kentucky	*		District of Columbia	*
	Louisiana	*		Kentucky	*
	Maine	*		Louisiana	*
	Mississippi	*		Maine	*
	Montana	*		Mississippi	*
	North Dakota	*		Montana	*
	South Dakota	*		North Dakota	*
	Vermont	*		Vermont	*
	West Virginia	*		West Virginia	*

*Reporting standards not met. Sample size is insufficient to permit a reliable estimate

Source: U.S. Dept. of Ed., National Ctr. for Education Statistics, National Assessment of Educational Progress (NAEP), 2007 Reading and Math Assessments.